

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 16-320

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

Filing as a: DCM SEF DCO SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 08/25/2016 **Filing Description:** Amendments to Price Limits and Trading Halts Rule of Fifteen (15) CME Equity Index Futures Contracts

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

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: See filing.

Rule Numbers: See filing.

August 25, 2016

VIA ELECTRONIC PORTAL

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

**Re: CFTC Regulation 40.6(a) Certification. Notification Regarding Amendments to Price Limits and Trading Halts Rule of Fifteen (15) CME Equity Index Futures Contracts.
CME Submission No. 16-320**

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. (“CME” or “Exchange”) hereby notifies the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying amendments to the price limits and trading halts rule of fifteen (15) CME equity index futures contracts listed below (the “Contracts”), effective on Sunday, September 11, 2016 for trade date Monday, September 12, 2016.

<u>CME Rulebook Chapter</u>	<u>Contract Title</u>
• Chapter 354	USD Denominated Ibovespa Futures
• Chapter 355	S&P 500 Growth Index Futures
• Chapter 356	S&P 500 Value Index Futures
• Chapter 359	E-mini NASDAQ 100 Index® Futures
• Chapter 360	E-mini™ NASDAQ® Biotechnology Index Futures
• Chapter 362	E-mini Standard and Poor's Midcap 400® Stock Price Index Futures
• Chapter 368	E-mini S&P Smallcap 600 Index™ Futures
• Chapter 377	E-mini NASDAQ Composite Index Futures
• Chapter 383	E-mini® Russell 1000® Index Futures
• Chapter 384	E-mini® Russell 1000® Growth Index Futures
• Chapter 385	E-mini® Russell 1000® Value Index Futures
• Chapter 388	E-mini® FTSE® China 50 Index
• Chapter 389	S&P MLP Total Return Index® Futures
• Chapter 390	E-mini® FTSE® Developed Europe Index Futures
• Chapter 391	E-mini® FTSE® Emerging Index Futures

The Exchange proposes rounding down the reference price to which price limits are anchored to a lower integer multiple. The Exchange is implementing the amendments to further increase the accuracy by which the futures market align with the underlying cash market.

The Exchange reviewed the designated contract market core principles (“Core Principles”) as set forth in the Commodity Exchange Act (“CEA” or “Act”) and identified the following Core Principles as being potentially impacted:

- Prevention of Market Disruption: The Exchange is implementing these aforementioned changes to remain in compliance with this Core Principle requiring the Exchange to maintain and promote orderly markets.
- Availability of General Information: The Exchange will amend the CME Rulebook to reflect the aforementioned changes on the effective date. In addition, the Exchange will publish a Special Executive Report (“SER”) to advise the marketplace of these amendments. The amended CME Rulebook and the SER will be publically available on the CME Group website.
- Execution of Transactions: The implementation of the amendments will further enable the Exchange to continue its current practice of providing a competitive, open, and efficient market mechanism for executing transactions in the Contracts.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.6(a), the Exchange hereby certifies that the amendments comply with the Act, including regulations under the Act. There were no substantive opposing views to this proposal.

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

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

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachment: Exhibit A – CME Rulebook Chapter Amendments (blackline format)

EXHIBIT A

CME Rulebook

(additions underlined; deletions ~~overstruck~~)

Chapter 354 USD Denominated Ibovespa Futures

35402.I. Price Limits, Trading Halts, and/or Trading Hours

For purposes of rules determining price limits and trading halts ETH refers to the Electronic Trading Hours of the USD Denominated Ibovespa Futures. At the open of ETH, there shall be price limits corresponding to a 10.0% increase above and a 10.0% decrease below the previous day's Ibovespa futures settlement price at BVMF.

USD Denominated Ibovespa futures price limits shall be calculated daily at the end of each ETH trading day based on the settlement price of Ibovespa futures ("F") at BVMF, as follows:

where:

F = Ibovespa futures daily settlement price at BVMF

L = 10% × F

10.0% Price Limits equal F plus and minus L, or $(F \pm L)$, subject to rounding as follows:

If the lower price limit $(F - L)$ is not evenly divisible by 5, then the lower price limit shall be rounded up to the nearest 5 point increment. If the upper price limit $(F + L)$ is not evenly divisible by 5, then the upper price limit shall be rounded down to the nearest ~~25~~ 5 point increment.

If there is no trading in Ibovespa futures at BVMF on a CME, Inc. trading day, then the price limits for USD Denominated Ibovespa futures shall be the trading limits based on the settlement price for Ibovespa futures at BVMF during the most recent BVMF trading day. Price limits and trading halts do not apply to the expiring USD Denominated Ibovespa futures contract during the last three trading days of the contract.

Chapter 355 S&P 500 Growth Index Futures

35502.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 35502.I.1.a.) and the corresponding Offsets (Rule 35502.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.20~~ 0.1 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 35500.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0-20]~~ 0.1 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 35502.1.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 35502.1.3.a. and 35502.1.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 35502.1.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 35500.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 35502.I.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 35502.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 35502.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 35502.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 356 S&P 500 Value Index Futures

35602.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 35602.I.1.a.) and the corresponding Offsets (Rule 35602.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.20~~ 0.1 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 35600.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.1 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 35602.1.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 35602.1.3.a. and 35602.1.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 35602.1.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 35600.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 35602.1.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 35602.1.1.a.) plus the 5% Offset determined on the current Business Day (Rule 35602.1.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 35602.1.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 359 E-mini NASDAQ 100 Index® Futures

35902.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 35902.I.1.a.) and the corresponding Offsets (Rule 35902.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 1.00 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.50~~ 0.25 Index points. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 35900.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0.50]~~ 0.25 Index points. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 35902.I.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 35902.I.3.a. and 35902.I.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 35902.I.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 35900.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 35902.I.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 35902.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 35902.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 35902.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 360

E-mini™ NASDAQ® Biotechnology Index Futures

36002.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 36002.I.1.a.) and the corresponding Offsets (Rule 36002.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.50~~ 0.10 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 35900.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0.50]~~ 0.10 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 36002.I.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 36002.I.3.a. and 35902.I.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 36002.I.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 36000.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 36002.I.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 36002.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 36002.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 36002.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 362 E-mini Standard and Poor's Midcap 400® Stock Price Index Futures

36202.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 36202.I.1.a.) and the corresponding Offsets (Rule 36202.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.20~~ 0.1 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 36200.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.1 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 36202.I.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 36202.I.3.a. and 36202.I.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 36202.I.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 36200.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 36202.I.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 36202.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 36202.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 36202.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 368

E-mini S&P Smallcap 600 Index™ Futures

36802.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 36802.I.1.a.) and the corresponding Offsets (Rule 36802.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.20~~ 0.1 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

In the event of an unscheduled early close of the Primary Listing Exchange, such Reference Price shall be set by application of these procedures to a Tier 1 reference interval defined as the final thirty (30) seconds of the Primary Listing Exchange trading day.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 36800.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0-20]~~ 0.1 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 36802.I.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 36802.I.3.a. and 36802.I.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 36802.I.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 36800.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 36802.I.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 36802.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 36802.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 36802.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 377 E-mini NASDAQ Composite Index Futures

37702.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 37702.I.1.a.) and the corresponding Offsets (Rule 37702.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the reference interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the reference interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 1.00 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~[4.00]~~ 0.50 Index points. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 37700.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[4.00]~~ 0.50 Index points. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 37702.1.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 37702.1.3.a. and 37702.1.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 37702.1.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 37700.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 37702.1.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 37702.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 37702.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 37702.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 383 E-mini® Russell 1000® Index Futures

38302.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 38302.I.1.a.) and the corresponding Offsets (Rule 38302.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.10 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 38300.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.10 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 38302.1.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 38302.1.3.a. and 38302.1.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 38302.1.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 38300.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 38302.1.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 38302.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 38302.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 38302.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 384 E-Mini® Russell 1000® Growth Index Futures

38402.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 38402.I.1.a.) and the corresponding Offsets (Rule 38402.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.20~~ 0.10 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 38400.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~0.20~~ 0.10 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 38402.1.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 38402.1.3.a. and 38402.1.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 38402.1.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 38400.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 38402.1.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 38402.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 38402.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 38402.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 385 E-mini® Russell 1000® Value Index Futures

38502.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 38502.I.1.a.) and the corresponding Offsets (Rule 38502.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.1 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 38500.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.1 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 38502.1.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 38502.1.3.a. and 38502.1.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 38502.1.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 38500.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 38502.1.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 38502.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 38502.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 38502.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 388

E-mini® FTSE® China 50 Index Futures

38802.I. Price Limits and Trading Halts

The primary futures contract expiration month, as referenced in this rule, shall be determined by the Exchange. The Exchange shall also determine when the primary futures contract month is limit bid or limit offered.

Reference Price for Exchange Price Limits and Exchange Trading Halts: Daily price limits in futures will be established on the basis of a Reference Price ("P") which shall be determined by the Exchange as follows:

- Tier 1 Such Reference Price shall be the volume-weighted average price of transactions in futures executed on Globex between 3:59:30 and 4:00:00 p.m. Hong Kong time.
- Tier 2 If no such transaction occurs, such Reference Price shall be the average of the midpoints of each bid/ask spread in futures during between 3:59:30 and 4:00:00 p.m. Hong Kong time, provided that bid/ask spread pairs wider than 10 Index points shall not be included in the calculation to determine such Reference Price.
- Tier 3 If such Reference Price cannot be determined pursuant to Tiers 1 and 2 above, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded *down* to the nearest integer multiple of ~~40~~5 Index points. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

In the event of an early close of the Hong Kong Exchange Securities Market, such Reference Price shall be made on the basis of the last thirty (30) seconds of the Hong Kong Exchange Securities Market trading day.

For newly listed futures, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

Exchange Price Limit Levels: The Price Limits shall be calculated daily based upon the Reference Price, P, and the value of the Index based on closing prices of Index component stocks made on the Hong Kong Stock Exchange Securities Market ("I"). The Offset used to derive the daily Price Limits shall be calculated as follows:

5% Offset	Equals	5% of I, or (0.05 x I) rounded down to the nearest 0.5 <u>5</u> point increment
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The daily Price Limits for futures shall be calculated as follows:

5% Price Limits	equals	P plus 5% Offset, and P minus 5% Offset
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Exchange Price Limits from 5:00 p.m. Chicago time to 9:30 a.m. Hong Kong time: There shall be no trading of futures at any price outside the range defined by the 5% Price Limits, where such 5% Price Limits are calculated on the basis of (i) the Reference Price determined by the Exchange immediately prior to the most recent Hong Kong Exchange Securities Market close and (ii) the Offset derived by the Exchange from the Index value based on the most recent Hong Kong Exchange Securities Market closing prices.

Exchange Price Limits from 9:30 a.m. Hong Kong time to 4:00 p.m. Hong Kong time: Price Limits shall not apply during Hong Kong Exchange Securities Market hours.

Exchange Price Limits from 4:00 p.m. Hong Kong time to 5:00 p.m. Chicago time: There shall be no trading of futures at any price outside the range defined by the 5% Price Limits, where such 5% Price Limits are calculated on the basis of (i) the Reference Price determined by the Exchange immediately prior to the most recent Hong Kong Exchange Securities Market close and (ii) the Offset derived by the Exchange from the Index value based on closing prices made at the Hong Kong

Exchange Securities Market close first preceding the latest Hong Kong Exchange Securities Market close.

Chapter 389 S&P MLP Total Return Index® Futures

38902.I. Price Limits and Trading Halts

Futures trading shall be subject to Price Limits as set forth in this Rule. For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 38902.I.1.a.) and the corresponding Offsets (Rule 38902.I.1.b.), as follows:

5% Price Limits = Reference Price minus 5% Offset, and Reference Price plus 5% Offset

7% Price Limit = Reference Price minus 7% Offset

13% Price Limit = Reference Price minus 13% Offset

20% Price Limit = Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

Tier 1

Such Reference Price shall be based on the volume-weighted average price of transactions in such futures on the CME Globex electronic trading platform during the interval (i) between 2:59:30 p.m. and 3:00:00 p.m., or (ii) in the case of an early scheduled close of the Primary Listing Exchange, between 11:59:30 a.m. and noon, or (iii) in the event of an unscheduled early close of the Primary Listing Exchange, the final thirty (30) seconds of the Primary Listing Exchange trading day ("Reference Interval").

Tier 2

If no such transaction occurs during the Reference Interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the Reference Interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 2.00 Index points (equal to two (2) minimum price increments).

Tier 3

If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~2.00~~ 1.00 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index value ("I") at the close of trading on the Primary Listing Exchange (Rule 38900.B.) on the first preceding Business Day, as follows:

5% Offset = 5% of I (0.05 x I)

7% Offset = 7% of I (0.07 x I)

13% Offset = 13% of I (0.13 x I)

20% Offset = 20% of I (0.20 x I)

Each resultant Offset value shall be rounded down to the nearest integer multiple of ~~[2.00]~~ 1.00 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:30 a.m.

From the start of any Trading Day until 8:30 a.m., there shall be no trading in futures for a given delivery month at any price that is either strictly lower than or strictly higher than the range defined by the 5% Price Limits (Rule 38902.1.1.) applicable to such futures on such Trading Day.

Without limitation to the foregoing, the start of any Trading Day generally shall coincide with the start of the CME Globex trading session at 5:00 p.m. on the evening first preceding such Trading Day.

If the Primary Futures Contract Month is limit bid or limit offered at 8:23 a.m. and remains limit bid or limit offered at 8:25 a.m., then futures trading shall halt and remain halted until 8:30 a.m. Prior to reopening of Globex trading in futures at 8:30 a.m., the Exchange shall provide indicative opening prices in accord with Rule 573.

3. Application of Price Limits and Trading Halts from 8:30 a.m. to 2:25 p.m.

Except as provided in Rules 38902.1.3.a. and 38402.1.3.b., from 8:30 a.m. until and including 2:25 p.m., or from 8:30 a.m. until and including 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange, futures for a given delivery month shall trade subject to the corresponding Price Limits (Rule 38902.1.1.), as follows:

There shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit, unless the Primary Futures Contract Month becomes limit offered at its 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 2-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.

3.a. Regulatory Halts

At such time as the Primary Listing Exchange may declare a Regulatory Halt (Rule 38900.C.) in response to a Level 1 (7%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 13% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 2 (13%) Market Decline in the S&P 500 Index, futures trading shall halt. When trading resumes on the Primary Listing Exchange, futures trading shall resume subject to the corresponding 20% Price Limit.

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

3.b. Unscheduled Non-Regulatory Halts

If an unscheduled trading halt that is not also a Regulatory Halt occurs on one or more Primary Listing Exchanges between 8:30 a.m. and 2:25 p.m., or between 8:30 a.m. and 11:25 a.m. in the case of an early scheduled close of the Primary Listing Exchange(s), then futures trading shall be subject to such trading halts or such price limits as the Exchange, in its sole discretion, may determine to be appropriate.

4. Application of Price Limits from 2:25 p.m. to 3:00 p.m.

From 2:25 p.m. to 3:00 p.m., or from 11:25 a.m. to noon in the case of an early scheduled close on the Primary Listing Exchange, trading in futures for a given delivery month shall be subject only to the corresponding 20% Price Limit (Rule 38902.1.1.).

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Index, futures trading shall halt and remain halted until trading resumes on the Primary Listing Exchange on the following Business Day.

5. Application of Price Limits from 3:00 p.m. to Close of Trading Day

From the close of trading on the Primary Listing Exchange at 3:00 p.m., or at noon in the case of an early scheduled close on the Primary Listing Exchange, until the close of the current Trading Day, trading in futures for a given delivery month shall be subject to an upper Price Limit equal to the corresponding Reference Price determined on the current Business Day (Rule 38902.I.1.a.) plus the 5% Offset determined on the current Business Day (Rule 38902.I.1.b.).

Trading in such futures also shall be subject to a lower Price Limit set as the corresponding Reference Price determined on the current Business Day minus the 5% Offset determined on the current Business Day, provided that such lower Price Limit shall be no lower than the 20% Price Limit (Rule 38902.I.1.) applicable to the current Trading Day.

Without limitation to the foregoing, the close of the current Trading Day generally shall coincide with the close of the CME Globex trading session on such Trading Day.

Chapter 390

E-mini® FTSE® Developed Europe Index Futures

39002.I. Price Limits

Futures trading shall be subject to Price Limits as set forth in this Rule.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 39002.I.1.a.) and the corresponding Offsets (Rule 39002.I.1.b.), as follows:

$$\begin{aligned} 5\% \text{ Price Limit} &= \text{Reference Price minus } 5\% \text{ Offset and} \\ &\text{Reference Price plus } 5\% \text{ Offset} \end{aligned}$$

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

- Tier 1 Such Reference Price shall be based on the volume-weighted average price of transactions in futures for such delivery month on the CME Globex electronic trading platform between 4:29:30 and 4:30:00 p.m. London time ("reference interval").
- Tier 2 If no such transaction occurs during the reference interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the reference interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.10 Index points.
- Tier 3 If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~0.40~~ 0.05 Index points. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine the Offset on the basis of the Index closing value ("I") for the first preceding Business Day, as follows:

$$5\% \text{ Offset} = 0.05 \times I$$

The resultant Offset value shall be rounded down to the nearest integer multiple of ~~0.40~~ 0.05 Index points. Such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits from Start of Trading Day to 8:00 a.m. London Time:

Without limitation to the following, the start of a Trading Day generally shall coincide with the start of the corresponding CME Globex trading session at 5:00 p.m. Chicago time on the evening first preceding such Trading Day.

From the start of any Trading Day until 8:00 a.m. London time, there shall be no trading in futures for a given delivery month at any price outside the range defined by the 5% Price Limits, where such 5% Price Limits are established on the basis of (i) the Reference Price most recently determined by the Exchange as of 5:00 p.m. Chicago time and (ii) the Offset derived by the Exchange on the basis of the most recently published Index closing value as of 5:00 p.m. Chicago time.

3. Application of Price Limits from 8:00 a.m. London Time to 4:30 p.m. London Time: Price Limits shall not apply.

4. Application of Price Limits from 4:30 p.m. London Time to 5:00 p.m. Chicago Time: There shall be no trading of futures at any price outside the range defined by the 5% Price Limits, where such 5% Price Limits are established on the basis of (i) the Reference Price most recently determined by the Exchange as of 4:30 p.m. London time and (ii) the Offset derived by the Exchange on the basis of the most recently published Index closing value as of 4:30 p.m. London time.

Chapter 391

E-mini® FTSE® Emerging Index Futures

39102.I. Price Limits

Futures trading shall be subject to Price Limits as set forth in this Rule.

For the purpose of this Rule the Exchange shall determine, in its sole discretion, the futures delivery month that represents the Primary Futures Contract Month and when such Primary Futures Contract Month is limit bid or limit offered.

1. Daily Determination of Price Limits

For a given Business Day, Price Limits applicable to a futures contract for a given delivery month shall be calculated on the basis of the corresponding Reference Price (Rule 39102.I.1.a.) and the corresponding Offsets (Rule 39102.I.1.b.), as follows:

7% Price Limit	=	Reference Price minus 7% Offset
13% Price Limit	=	Reference Price minus 13% Offset
20% Price Limit	=	Reference Price minus 20% Offset

1.a. Reference Prices for Price Limits

For a given Business Day, for futures for a given delivery month, the Exchange shall set a contract Reference Price on the first preceding Business Day, as follows:

- Tier 1 Such Reference Price shall be based on the volume-weighted average price of transactions in futures for such delivery month on the CME Globex electronic trading platform between 2:59:30 p.m. and 3:00:00 p.m. ("reference interval").
- Tier 2 If no such transaction occurs during the reference interval, then such Reference Price shall be based on the average of midpoints of bid/ask spreads for such futures quoted on CME Globex during the reference interval, provided that the Reference Price calculation shall exclude the midpoint value for any such bid/ask spread that is wider than 0.20 Index points.
- Tier 3 If such Reference Price cannot be determined pursuant to Tier 1 or Tier 2, then the Exchange, in its sole discretion, shall set such Reference Price by alternative means which may include, but are not limited to, derivation by reference to the basis relationship between such futures contract's price and the Index, or application of Tier 1 and Tier 2 calculations to successive time intervals of increasing length, in integer multiples of thirty (30) seconds, until suitable price data are obtained.

The resultant Reference Price value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.10 Index point[s]. Such Reference Price, so rounded, shall be used for determination of the corresponding Price Limits.

For newly listed futures for a given delivery month, the Exchange shall set, in its sole discretion, a Reference Price value for the purpose of determining Price Limits for the first day of trading in such futures.

1.b. Offsets for Price Limits

For a given Business Day, the Exchange shall determine Offsets on the basis of the Index closing value ("I") for the first preceding Business Day, as follows:

7% Offset	=	0.07 x I
13% Offset	=	0.13 x I
20% Offset	=	0.20 x I

Each Offset value shall be rounded down to the nearest integer multiple of ~~[0.20]~~ 0.10 Index point[s]. Each such Offset, so rounded, shall be used in determination of the corresponding Price Limits.

2. Application of Price Limits

From the commencement of any Trading Day there shall be no futures trading at any price strictly lower than the corresponding 7% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 7% Price Limit, the Exchange shall initiate a 10-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 7% Price Limit, futures trading shall continue subject to the corresponding 13% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 7% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 13% Price Limit.

At such time as the Primary Futures Contract Month becomes limit offered at its 13% Price Limit, the Exchange shall initiate a 10-minute observation interval. At the conclusion of such observation interval:

If the Primary Futures Contract Month is not limit offered at its 13% Price Limit, futures trading shall continue subject to the corresponding 20% Price Limit.

If the Primary Futures Contract Month remains limit offered at its 13% Price Limit, futures trading shall halt for two (2) minutes, and shall then resume subject to the corresponding 20% Price Limit.

There shall be no futures trading at any price strictly lower than the corresponding 20% Price Limit.