EXHIBIT 5A

(additions are <u>underlined</u>; deletions are [bracketed])

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Rules of Cboe Exchange, Inc.

(currently effective)

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[CHAPTER XX. RANGE OPTION CONTRACTS

Introduction

The rules in this Chapter are applicable only to Range Options. Trading of Range Options shall also be subject to the rules in Chapters I through XIX, XXIV, and XXIVA, in some cases supplemented by the rules in this Chapter, except for rules that have been replaced by rules in this Chapter and except where context otherwise requires.

Rule 20.1. Definitions

The following terms as used in this Chapter shall, unless the context otherwise indicates, have the meanings herein specified.

Range Option

(a) The term "Range Option" means a European-style, cash-settled option contract that pays an exercise settlement amount if the settlement value of the underlying index at expiration falls within the specified Range Length.

Settlement Value

(b) The term "Settlement Value" means the underlying index value at expiration of the Range Option.

Range Length

(c) The term "Range Length" means the entire length of the range of values of the underlying index for which the option pays a positive amount if the Settlement Value of the underlying index falls within the specific Range Length at expiration. The Exchange sets the Range Length at listing.

Range Interval

(d) The term "Range Interval" means an interval amount that determines the range size of both the Low Range and the High Range. The minimum Range Interval amount is 5 index points. The Exchange sets the Range Interval at listing.

Low Range and Low Range Exercise Value

(e) The term "Low Range" means a segment of values along the Range Length (as determined by the Range Interval) that immediately precedes the Middle Range. For a Range Option, if the settlement value of the underlying index at expiration falls within the Low Range, the option will have a linear payout structure that increases as the index value increases within the Low Range. The "Low Range Exercise Value" is an amount that varies and begins at 0 and increases along the length of the Low Range and ends at a capped amount immediately preceding the start of the Middle Range (i.e., Maximum Range Exercise Value).

High Range and High Range Exercise Value

(f) The term "High Range" means a segment of values along the Range Length (as determined by the Range Interval) that immediately succeeds the Middle Range. For a Range Option, if the settlement value of the underlying index at expiration falls within the High Range, the option will have a linear payout structure that decreases as the index value increases within the High Range. The "High Range Exercise Value" is an amount that varies and begins at a capped amount immediately succeeding the end of the Middle Range (i.e., Maximum Range Exercise Value) and decreases along the length of the High Range and ends at 0.

Middle Range and Maximum Range Exercise Value

(g) The term "Middle Range" means a segment of values along the Range Length that lies between the Low Range and the High Range and its length is equal to the Range Length minus twice the Range Interval. For a Range Option, if the settlement value of the underlying index at expiration falls within the Middle Range, the "Maximum Range Exercise Value" will be a fixed amount that does not vary based on where in the Middle Range the settlement value of the underlying index falls and represents the maximum payout amount for Range Options. The Exchange sets the Maximum Range Exercise Value at listing.

Contract Multiplier

(h) The term "Contract Multiplier" as used in reference to Range Options means the multiple applied to the exercise value to arrive at the exercise settlement amount per contract. The Contract Multiplier is established on a class-by-class basis and shall be at least 1 and is expressed in a dollar amount.

Exercise Settlement Amount

(i) The term "Exercise Settlement Amount" as used in reference to a Range Option means the amount of cash that a holder will receive and a writer will be obligated to pay upon exercise of the contract. The Exercise Settlement Amount is equal to the exercise value (i.e., Low Range Exercise Value or High Range Exercise Value or Maximum Range Exercise Value) times the contract multiplier.

Exercise Price

(j) The term "Exercise Price" (i.e., strike price) as used in reference to a Range Option means the range of index values (i.e., Range Length) at which the option will be exercised at expiration. The exercise price for Range Options will be used to determine the degree that the option is in-themoney if the settlement value of the underlying index falls within either the High Range or Low Range of the Range Length. If the settlement value of the underlying index falls within the Middle Range, the option will be exercised at the Maximum Exercise Value.]

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[Rule 20.3. Designation of Range Option Contracts

- (a) The Exchange may from time to time, approve for listing and trading on the Exchange Range Option contracts that overlie any index that is eligible for options trading on the Exchange. Range Options are a separate class from other options overlying the same index.
- (b) The Exchange may add new series of Range Options of the same class (i.e., overlying the same index) as provided for by the rules governing options on the same underlying index. Additional series of Range Options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market or to meet customer demand. The opening of a new series of Range Options on the Exchange will not affect any other series of options of the same class previously opened.

Rule 20.4. Maintenance Listing Standards

The maintenance listing standards with respect to options on indexes set forth in Rule 24.2 and the Interpretations and Policies thereunder shall be applicable to Range Options on indexes.]

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Rule 20.9. Determination of the Settlement Value of the Underlying Index

Range Options that are "in-the-money," or "out-of-the-money" are a function of whether the settlement value of the underlying index at expiration falls within or outside of the Range Length.]

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[CHAPTER XXII. BINARY OPTIONS

Introduction

The rules in this Chapter are applicable only to binary options. Trading of binary options shall also be subject to the rules in Chapters I through XIX, XXIV, and XXIVA, in some cases supplemented by the rules in this Chapter, except for rules that have been replaced by rules in this Chapter and except where context otherwise requires.

Rule 22.1. Definitions

The following terms as used in this Chapter, shall unless the context otherwise indicates, have the meanings herein specified.

Binary Option

(a) The term "binary option" means a European-style option contract having an exercise settlement amount that is established at the creation of the option. Binary options are paid out if settlement value of the underlying broad-based index equals, exceeds or is less than the exercise price, depending on the type of option (i.e., call or put).

Call Binary Option

(b) The term "call binary option" means an option contract which returns an exercise settlement amount if the settlement value of the underlying broad-based index is at or above the exercise price at expiration (i.e., in- or at-the-money).

Put Binary Option

(c) The term "put binary option" means an option contract which returns an exercise settlement amount if the settlement value of the underlying broad-based index is below the exercise price at expiration (i.e., in-the-money).

Exercise Price

(d) The term "exercise price" as used in reference to a binary option means the value to which the settlement value of the underlying broad-based index is compared to determine whether the holder of a binary option is entitled to have the option be paid out.

Exercise Settlement Amount

(e) The term "exercise settlement amount" as used in reference to a binary option means the amount of cash that a holder will receive upon exercise of the contract. The exercise settlement amount is a set amount equal to the exercise settlement value multiplied by the contract multiplier. The exercise settlement value will be an amount determined by the Exchange on a class-by-class basis and shall be equal to \$10 or \$1,000 or a value between those values, unless otherwise adjusted per Rule 5.7.

Contract Multiplier

(f) The term "contract multiplier" as used in reference to a binary option means the multiple applied to the exercise settlement value to arrive at the total exercise settlement amount per contract. The contract multiplier is established on a class-by-class basis and shall be at least 1.

Reporting Authority

(g) The term "reporting authority" as used in this Chapter has the meaning set forth in Rule 24.1.

Settlement Value

(h) The term "settlement value" is the value of the underlying broad-based index that is used to determine whether a binary option is in, at or out of the money. For binary options on a broad-based index on which traditional options on the same broad-based index are A.M. settled, the "settlement value" is the reported opening level of such index as derived from the prices of the underlying securities on such day and as reported by the reporting authority for the index. For binary options on a broad-based index on which traditional options on the same broad-based index are P.M. settled, the "settlement value" is the reported closing level of such index as derived from the prices of the underlying securities on such day and as reported by the reporting authority for the index.]

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[Rule 22.3. Designation of Binary Option Contracts

- (a) The Exchange may from time to time approve for listing and trading on the Exchange binary option contracts on a broad-based index which has been selected in accordance with Rule 24.2 and the Interpretations and Policies thereunder. Binary options are a separate class from other options overlying the same broad-based index.
- (b) Only binary option contracts approved by the Exchange and currently open for trading on the Exchange may be purchased or sold on the Exchange. Binary options dealt in on the Exchange are designated as to expiration date, exercise price, exercise settlement amount, contract multiplier and underlying broad-based index. Binary options on broad-based indexes for which traditional options on the same broad-based index are A.M. settled will be A.M. settled, and binary options on broad-based indexes for which traditional options on the same broad-based index are P.M. settled (i.e., S&P 100 Index ("OEX")) will be P.M. settled.
- (c) After a particular binary option class has been approved for listing and trading on the Exchange, the Exchange from time to time may open for trading series of options on that class. Binary option series may be designated to expire from one day up to 36 months from the time that they are listed.
- (d) The Exchange may add new series of options of the same class as provided for in Rule 24.9 and the Interpretations and Policies thereunder. Additional series of the same binary option class may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market or to meet customer demand. The opening of a new series of binary options on the Exchange will not affect any other series of options of the same class previously opened.

Rule 22.4. Maintenance Listing Standards

The maintenance listing standards with respect to options on broad-based indexes set forth in Rule 24.2 and the Interpretations and Policies thereunder shall be applicable to binary options on broad-based indexes.]

* * * * *

(a) Binary options that are "at-the-money," "in-the-money," or "out-of-the-money" are a function of the settlement value of the underlying broad-based index in relation to the type of binary option (i.e., put or call) and the exercise price.

Rule 22.11. Trading Rotations

Rules 6.2 and 24.13 and their Interpretations and Policies thereunder shall be applicable to binary options.]

* * * * *

[Rule 22.13. Premium Bids and Offers; Minimum Increments; Priority and Allocation]

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- [(c) Binary option contracts are subject to adjustment only in accordance with and to the extent specified in the By-Laws and Rules of the Clearing Corporation. When any such adjustment has been determined, announcement thereof shall be made by the Exchange and shall become effective as of the time specified in such announcement.
- (d) The rules of priority and order allocation procedures set forth in Rule 6.45 apply to binary options.]

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[Rule 22.16. FLEX Trading

Binary options on indexes that are eligible for options trading on the Exchange shall be eligible for trading as Flexible Exchange Options as provided for in Chapter XXIVA, even if the Exchange does not list and trade Non-FLEX binary options or Non-FLEX traditional options on such indexes. For purposes of Rule 24A.4, the applicable exercise settlement value shall be designated by the parties to the contract, the parties may not designate an exercise style other than European-style, and the term "index multiplier" shall refer to the contract multiplier. Rule 24A.7 shall not apply to binary options and the position limit methodology set forth in Rule 22.6 shall apply. Rule 24A.9, regarding minimum quote width, shall not apply to binary options and the minimum quote width set forth in Rule 22.14 shall apply.]

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[CHAPTER XXIV. INDEX OPTIONS

Introduction

The rules in this Chapter are applicable only to index options (options on indices of securities as defined below). The rules in Chapters I through XIX are also applicable to the options provided for in this Chapter. In some cases rules in Chapters I through XIX are replaced or are supplemented by rules in this Chapter.

Rule 24.1. Definitions

(a) – (d) Reserved

Underlying Security

(e) The term "underlying security" or "underlying securities" with respect to an index option contract means any of the securities or mutual funds that are the basis for the calculation of the index.

Index Multiplier

(f) The term "index multiplier" means the amount specified in the contract by which the current index value is to be multiplied to arrive at the value required to be delivered to the holder of a call or by the holder of a put upon valid exercise of the contract.

Current and Closing Index Value

(g) The term "current index value" in respect of a particular index option contract means the level of the underlying index reported by the reporting authority for the index, or any multiple or fraction of such reported level specified by the Exchange. The current index value in respect of a reduced-valve LEAP is one-tenth (1/10th) of the current index value of the related index option. The "closing index value" shall be the last index value reported on a business day.

Reporting Authority

(h) The term "reporting authority" in respect of a particular index means the institution or reporting service designated by the Exchange as the official source for calculating the level of the index from the reported prices of the underlying securities that are the basis of the index and reporting such level.

Market or Broad-Based Index; Industry or Narrow-Based Index

(i)

- (1) The terms "market index" and "broad-based index" mean an index designed to be representative of a stock market as a whole or of a range of companies in unrelated industries.
- (2) The terms "industry index" and "narrow-based index" mean an index designed to be representative of a particular industry or a group of related industries and include indices having component securities that are all headquartered within a single country.
- (3) The term "Micro Narrow-Based Index" means an industry or narrow-based index that meets the specific criteria provided under Rule 24.2(d).

(j) Reserved

- (k) Reserved
- (1) Reserved.
- (m) Reserved
- (n) Reserved
- (o) Reserved

Cap Interval

(p) The term "cap interval" means a value specified by the Exchange which, when added to the exercise price for such series (in the case of a series of calls) or subtracted from the exercise price for such series (in the case of a series of puts), results in the cap price for such series.

Cap Price

(q) The term "cap price" means the exercise price plus the cap interval for a call or the exercise price minus the cap interval for a put. The cap price is assigned to the capped index option (CAPS) when listed.

A.M.-Settled Index Option

(r) The term "A.M.-settled index option" means an index option contract for which the current index value at expiration shall be determined as provided in Rule 24.9(a)(4).

Quarterly Index Expiration or QIX

(s) The term "Quarterly Index Expiration" or "QIX" means an index option contract that expires on the last business day of a calendar quarter.

Quarterly Index Expiration, Capped-Style Option or Q-CAPS

(t) The term "Quarterly Index Expiration, Capped-Style Option" or "Q-CAPS" means a capped-style index option contract that expires on the first business day of the month following the end of a calendar quarter.

Packaged Vertical Spread

(u) The term "Packaged Vertical Spread" means a single European-style, cash-settled index option overlying a broad-based index (such as the S&P 100 index or the S&P 500 index) whose exercise settlement amount is equal to (1) in the case of a call, the lessor of (a) the amount the current index level is above the exercise price, or (b) the vertical spread interval, multiplied by a multiplier of either \$100 or \$500; or (2) in the case of a put, the lesser of (a) the amount of the current index level is below the exercise price, or (b) the vertical spread interval, multiplied by a multiplier of either \$100 or \$500.

Vertical Spread Interval

(v) The term "vertical spread interval" means a value specified by the Exchange which, when added to the exercise price for call series or subtracted from the exercise price for put series defines the index level over which (for calls) or under which (for puts) the value of the contract will have its maximum value at expiration. For example, a packaged vertical call spread with an exercise price of 800 and a vertical spread interval of 20 will have an exercise settlement amount greater than \$0 for overlying index levels above 800 and have a maximum value for index levels of 820 (800 plus 20) and above.

Packaged Butterfly Spread

(w) The term "Packaged Butterfly Spread" means a single European-style, cash-settled index option overlying a broad-based index (such as the S&P 100 index or the S&P 500 index) that replicates the combination of four options of the same type on the same underlying interest with the same expiration, two having the same exercise price, the third having an exercise price above the first two by the butterfly spread interval, and the fourth having an exercise price below the exercise price of the first two by the same butterfly spread interval. The exercise price for the Packaged Butterfly Spread is the exercise price of the two options at the mid-point of the replicated butterfly spread. The exercise settlement amount of the Packaged Butterfly Spread is equal to the greater of (1) the butterfly spread interval minus the difference between the current index value and the strike price of the butterfly multiplied by the multiplier (e.g., \$100 in the case of Packaged Butterfly Spreads overlying the S&P 100 or the S&P 500) or (2) \$0.

Butterfly Spread Interval

(x) The term "butterfly spread interval" means a value specified by the Exchange which, when added to the exercise price and subtracted from the exercise price defines a range of index values over which the option has an exercise settlement amount greater than \$0. For example, a packaged butterfly spread with an exercise price of 800 and a butterfly spread interval of 30 will have an exercise settlement amount greater than \$0 for overlying index values between 830 (800 plus 30) and 770 (800 minus 30), and \$0 for all other index values.

Short Term Option Series

(y) The term "Short Term Option Series" means, for the purposes of Chapter XXIV, a series in an index option class that is approved for listing and trading on the Exchange in which the series is opened for trading on any Friday that is a business day and that expires on the next Friday that is a business day. If a Friday is not a business day, the series may be opened (or shall expire) on the first business day immediately prior to that Friday.

Quarterly Options Series

(z) The term "Quarterly Options Series" means, for the purposes of Chapter XXIV, a series in an options class that is approved for listing and trading on the Exchange in which the series is opened for trading on any business day and that expires at the close of business on the last business day of a calendar quarter.

Delayed Start Option Series

(aa) The term "Delayed Start Option Series" means a series of a cash-settled index option classes that begins trading without an exercise price and subsequently has its exercise price fixed by the Exchange as provided in Rule 24.9(d).

Individual Stock or ETF Based Volatility Indexes

(bb) The term "Individual Stock or ETF Based Volatility Indexes" means volatility indexes that provide an up-to-the-minute market estimate of the expected volatility of its corresponding underlying stock or ETF calculated by using real-time bid/ask quotes of Cboe Options listed options overlying that individual stock or ETF. The following Individual Stock or ETF Based Volatility Indexes have been approved for trading on the Exchange:

Symbol	Underlying Volatility Index
VXAPL	Cboe Equity VIX on Apple
VXAZN	Cboe Equity VIX on Amazon
VXGS	Cboe Equity VIX on Goldman Sachs
VXGOG	Cboe Equity VIX on Google
VXIBM	Cboe Equity VIX on IBM
GVZ	Cboe Gold ETF Volatility Index
OVX	Cboe Crude Oil ETF Volatility Index
VXEEM	Cboe Emerging Markets ETF Volatility Index
VXFXI	Cboe China ETF Volatility Index
VXEWZ	Cboe Brazil ETF Volatility Index
VXGDX	Cboe Gold Miners ETF Volatility Index
VXSLV	Cboe Silver ETF Volatility Index
VXXLE	Cboe Energy Sector ETF Volatility Index

... Interpretations and Policies:

.01 The reporting authorities designated by the Exchange in respect of each index underlying an index option contract traded on the Exchange are as follows:

Index	Reporting Authority
S&P 100	Standard & Poor's.
S&P 500	Standard & Poor's.
Choe Bio Tech	Cboe Global Indices, LLC
FTSE 100 Index (1/10 th)	FTSE International Limited
FT-SE 200 Eurotrack	London Stock Exchange
Russell 2000	Frank Russell Co.
S&P Transportation	Standard & Poor's.
S&P Retail	Standard & Poor's.
S&P Health Care	Standard & Poor's.
S&P Entertainment & Leisure	Standard & Poor's.
S&P Banking	Standard & Poor's.
S&P Insurance	Standard & Poor's.
S&P Chemical	Standard & Poor's.
Choe Options Software	Cboe Global Indices, LLC
Cboe Options Environmental	Cboe Global Indices, LLC
S&P 500/Barra Growth	Standard & Poor's.
S&P 500/Barra Value	Standard & Poor's.
Nasdaq 100	Nasdaq, Inc.
Choe Options Gaming	Cboe Global Indices, LLC

Cboe Options Global Telecommunications

Cboe Global Indices, LLC

Cboe Options Mexico Cboe Global Indices, LLC

Cboe Options Israeli Cboe Global Indices, LLC

Cboe REIT Index Cboe Global Indices, LLC

Nikkei Stock Index 300 Nihon Keizai Shimbun, Inc.

Cboe Options Emerging Asian Markets

Cboe Global Indices, LLC

Cboe Options Emerging Markets Cboe Global Indices, LLC

S&P SmallCap 600 Index Standard & Poor's

Cboe Options Latin 15 Cboe Global Indices, LLC

Cboe Technology Index Cboe Global Indices, LLC

Cboe Germany 25 Index Cboe Global Indices, LLC

Mexico 30 Index Cboe Global Indices, LLC

Choe Options Automotive Choe Global Indices, LLC

Cboe Internet Index Cboe Global Indices, LLC

Cboe Oil Index Cboe Global Indices, LLC

Cboe Gold Index Cboe Global Indices, LLC

Cboe Computer Networking Index Cboe Global Indices, LLC

Cboe PC Index Cboe Global Indices, LLC

IPC Mexican Stock Exchange

GSTI Composite Index Goldman, Sachs & Co.

GSTI Internet Index Goldman, Sachs & Co.

GSTI Software Index Goldman, Sachs & Co.

GSTI Semiconductor Index Goldman, Sachs & Co.

GSTI Hardware Index Goldman, Sachs & Co.

GSTI Multimedia Networking Index Goldman, Sachs & Co.

GSTI Services Index Goldman, Sachs & Co.

Morgan Stanley Multinational Company Index Morgan Stanley

Reduced Value NYSE Composite Index Dow Jones & Company, Inc.

Dow Jones Industrial Average Dow Jones & Company, Inc.

Dow Jones Transportation Average Dow Jones & Company, Inc.

Dow Jones Utility Average Dow Jones & Company, Inc.

Lipper Analytical Services,

Lipper Analytical/Salomon Bros. Growth Fund Index Inc.

Lipper Analytical Services,

Lipper Analytical/Salomon Bros. Growth & Income Fund Index Inc.

Dow Jones High Yield Select 10 Index Cboe Global Indices, LLC

Dow Jones Equity REIT Index Dow Jones & Company, Inc.

Dow Jones E*Commerce Index Dow Jones & Company, Inc.

Cboe Euro 25 Index Cboe Global Indices, LLC

Cboe Asian 25 Index Cboe Global Indices, LLC

Russell 1000 Index Frank Russell Co.

Russell 1000 Growth Index Frank Russell Co.

Russell 1000 Value Index Frank Russell Co.

Russell 2000 Growth Index Frank Russell Co.

Russell 2000 Value Index Frank Russell Co.

Russell 3000 Index Frank Russell Co.

Russell 3000 Growth Index Frank Russell Co.

Russell 3000 Value Index Frank Russell Co.

Russell Midcap Index Frank Russell Co.

Russell Midcap Growth Index Frank Russell Co.

Russell Midcap Value Index Frank Russell Co.

Russell Top 200 Index Frank Russell Co.

Russell Top 200 Growth Index Frank Russell Co.

Russell Top 200 Value Index Frank Russell Co.

Cboe China Index Cboe Global Indices, LLC

Cboe Volatility Index® (VIX®)

Cboe Global Indices, LLC

Choe Nasdaq 100® Volatility Index (VXN®)

Choe Global Indices, LLC

Cboe Dow Jones Industrial Average® Volatility Index (VXD®) Cboe Global Indices, LLC

Cboe Increased-Value Volatility Index® Cboe Global Indices, LLC

Cboe Increased-Value Nasdaq 100® Volatility Index

Cboe Global Indices, LLC

Choe Increased-Value Dow Jones Industrial Average® Volatility

Index Cboe Global Indices, LLC

Cboe PowerPacks SM Bank Index Cboe Global Indices, LLC

Cboe PowerPacks SM Biotechnology Index Cboe Global Indices, LLC

Cboe PowerPacks SM Gold Index Cboe Global Indices, LLC

Cboe PowerPacks SM Internet Index Cboe Global Indices, LLC

Cboe PowerPacks SM Iron & Steel Index Cboe Global Indices, LLC

Cboe PowerPacks SM Oil Index Cboe Global Indices, LLC Cboe PowerPacks SM Oil Services Index Cboe Global Indices, LLC Cboe PowerPacks SM Pharmaceuticals Index Cboe Global Indices, LLC Cboe PowerPacks SM Retail Index Cboe Global Indices, LLC Cboe PowerPacks SM Semiconductor Index Cboe Global Indices, LLC Cboe PowerPacks SM Technology Index Cboe Global Indices, LLC Cboe PowerPacks SM Telecom Index Cboe Global Indices, LLC Cboe Russell 2000 Volatility Index SM ("RVX SM") Cboe Global Indices, LLC Cboe S&P 500 Three-Month Realized Variance Cboe Global Indices, LLC Cboe S&P 500 Three-Month Realized Volatility Cboe Global Indices, LLC Cboe S&P 500 BuyWrite Index (1/10th value) Cboe Global Indices, LLC S&P 500 Dividend Index Standard & Poor's Cboe Gold ETF Volatility Index Cboe Global Indices, LLC Choe Equity VIX on Apple Cboe Global Indices, LLC Cboe Equity VIX on Amazon Cboe Global Indices, LLC Cboe Equity VIX on Goldman Sachs Cboe Global Indices, LLC Choe Equity VIX on Google Cboe Global Indices, LLC Cboe Equity VIX on IBM Cboe Global Indices, LLC Cboe Crude Oil ETF Volatility Index Cboe Global Indices, LLC Cboe Emerging Markets ETF Volatility Index Cboe Global Indices, LLC Cboe China ETF Volatility Index Cboe Global Indices, LLC Cboe Brazil ETF Volatility Index Cboe Global Indices, LLC Cboe Gold Miners ETF Volatility Index

Cboe Global Indices, LLC

Cboe Energy Sector ETF Volatility Index Cboe Global Indices, LLC

Cboe Silver ETF Volatility Index

Cboe Global Indices, LLC

Cboe S&P 500 AM/PM Basis Cboe Global Indices, LLC

Cboe Short-Term Volatility Index

Cboe Global Indices, LLC

MSCI EAFE Index (EAFE)

MSCI Inc.

MSCI Emerging Markets Index (EM) MSCI Inc.

FTSE China 50 Index (1/100 th)

FTSE International Limited

FTSE Emerging Index FTSE International Limited

FTSE Developed Europe Index FTSE International Limited

S&P Financial Select Sector Index (IXM) S&P Dow Jones Indices

S&P Energy Select Sector Index (IXE) S&P Dow Jones Indices

S&P Technology Select Sector Index (IXT)

S&P Dow Jones Indices

S&P Health Care Select Sector Index (IXV) S&P Dow Jones Indices

S&P Utilities Select Sector Index (IXU)

S&P Dow Jones Indices

S&P Consumer Staples Select Sector Index (IXR)

S&P Dow Jones Indices

S&P Industrials Select Sector Index (IXI)

S&P Dow Jones Indices

S&P Consumer Discretionary Select Sector Index (IXY)

S&P Dow Jones Indices

S&P Materials Select Sector Index (IXB) S&P Dow Jones Indices

S&P Real Estate Select Sector Index (IXRE)

S&P Dow Jones Indices

S&P Communication Services Select Sector Index (IXC) S&P Dow Jones Indices

Rule 24.2. Designation of the Index

- (a) The component securities of an index underlying an index option contract need not meet the requirements of Rule 5.3. Except as set forth in subparagraphs (b), (d), and (f) below, the listing of a class of index options on a new underlying index will be treated by the Exchange as a proposed rule change subject to filing with and approval by the Commission under Section 19(b) of the Exchange Act.
- (b) Notwithstanding paragraph (a) above, the Exchange may trade options on a narrow-based index pursuant to Rule 19b-4(e) of the Securities Exchange Act of 1934, if each of the following conditions is satisfied:
 - (1) The options are designated as A.M.-settled index options:
 - (2) The index is capitalization-weighted, price-weighted, equal dollar-weighted, or modified capitalization-weighted, and consists of ten or more component securities:
 - (3) Each component security has a market capitalization of at least \$75 million, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index, the market capitalization is at least \$50 million:
 - (4) Trading volume of each component security has been at least one million shares for each of the last six months, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index, trading volume has been at least 500,000 shares for each of the last six months:
 - (5) In a capitalization-weighted index or a modified capitalization-weighted index, the lesser of the five highest weighted component securities in the index or the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of component securities in the index each have had an average monthly trading volume of at least 2,000,000 shares over the past six months:
 - (6) No single component security represents more than 25% of the weight of the index, and the five highest weighted component securities in the index do not in the aggregate account for more than 50% (60% for an index consisting of fewer than 25 component securities) of the weight of the index:
 - (7) Component securities that account for at least 90% of the weight of the index and at least 80% of the total number of component securities in the index satisfy the requirements of Rule 5.3 applicable to individual underlying securities;
 - (8) All component securities are "reported securities" as defined in Rule 11A a3-1 under the Exchange Act:
 - (9) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not in the aggregate represent more than 20% of the weight of the index:

- (10) The current underlying index value will be reported at least once every fifteen seconds during the time the index options are traded on the Exchange:
- (11) An equal dollar-weighted index will be rebalanced at least once every calendar quarter:
- (12) If an underlying index is maintained by a broker-dealer, the index is calculated by a third party who is not a broker-dealer, and the broker-dealer has erected a "Chinese Wall" around its personnel who have access to information concerning changes in and adjustments to the index.
- (c) The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (b) above:
 - (1) The conditions stated in subparagraphs (b)(1), (3), (6), (7), (8), (9), (10), (11) and (12) must continue to be satisfied, provided that the conditions stated in subparagraph (b)(6) must be satisfied only as of the first day of January and July in each year:
 - (2) The total number of component securities in the index may not increase or decrease by more than 33 1/3% from the number of component securities in the index at the time of its initial listing, and in no event may be less than nine component securities:
 - (3) Trading volume of each component security in the index must be at least 500,000 shares for each of the last six months, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index, trading volume must be at least 400,000 shares for each of the last six months:
 - (4) In a capitalization-weighted index or a modified capitalization-weighted index, the lesser of the five highest weighted component securities in the index or the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of stocks in the index each have had an average monthly trading volume of at least 1,000,000 shares over the past six months. In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless such failure is determined by the Exchange not to be significant and the Commission concurs in that determination, or unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.
- (d) Notwithstanding paragraph (a) above, the Exchange may trade options on a Micro Narrow-Based security index pursuant to Rule 19b-4(e) of the Securities Exchange Act of 1934, if each of the following conditions is satisfied:
 - (1) The Index is a security index:
 - (i) that has 9 or fewer component securities; or
 - (ii) in which a component security comprises more than 30 percent of the index's weighting; or

- (iii) in which the 5 highest weighted component securities in the aggregate comprise more than 60 percent of the index's weighting; or
- (iv) in which the lowest weighted component securities comprising, in the aggregate, 25 percent of the index's weighting have an aggregate dollar value of average daily trading volume of less than \$50,000,000 (or in the case of an index with 15 or more component securities, \$30,000,000) except that if there are two or more securities with equal weighting that could be included in the calculation of the lowest weighted component securities comprising, in the aggregate, 25 percent of the index's weighting, such securities shall be ranked from lowest to highest dollar value of average daily trading volume and shall be included in the calculation based on their ranking starting with the lowest ranked security;
- (2) The index is capitalization-weighted, modified capitalization-weighted, price-weighted, share weighted, equal dollar-weighted, approximate equal-dollar weighted, or modified equal-dollar weighted;
 - (i) For the purposes of this Rule 24.2(d), an approximate equal-dollar weighted index is composed of one or more securities in which each component security will be weighted equally based on its market price on the index's selection date and the index must be reconstituted and rebalanced if the notional value of the largest component is at least twice the notional volume of the smallest component for fifty percent or more of the trading days in the three months prior to December 31 of each year. For purposes of this provision the "notional value" is the market price of the component times the number of shares of the underlying component in the index. Reconstitution and rebalancing are also mandatory if the number of components in the index is greater than five at the time of rebalancing. The Exchange reserves the right to rebalance quarterly at its discretion.
 - (ii) For the purposes of this Rule 24.2(d), a modified equal-dollar weighted index is an index in which each underlying component represents a pre-determined weighting percentage of the entire index. Each component is assigned a weight that takes into account the relative market capitalization of the securities comprising the index. A modified equal-dollar weighted index will be balanced quarterly.
 - (iii) For the purposes of this Rule 24.2(d), a share-weighted index is calculated by multiplying the price of the component security by an adjustment factor. Adjustment factors are chosen to reflect the investment objective deemed appropriate by the designer of the index and will be published by the Exchange as part of the contract specifications. The value of the index is calculated by adding the weight of each component security and dividing the total by an index divisor, calculated to yield a benchmark index level as of a particular date. A share-weighted index is not adjusted to reflect changes in the number of outstanding shares of its components. A share-weighted Micro Narrow-Based index will not be re- balanced. If a share-weighted Micro Narrow-Based Index fails to meet the maintenance listing standards under Rule 24.2(e), the Exchange will restrict trading in existing option series to closing transactions and will not issue additional series for that index.

- (iv) The Exchange may rebalance any Micro Narrow-Based index on an interim basis if warranted as a result of extraordinary changes in the relative values of the component securities. To the extent investors with open positions must rely upon the continuity of the options contract on the index, outstanding contracts are unaffected by rebalancings.
- (3) Each component security in the index has a minimum market capitalization of at least \$75 million, except that each of the lowest weighted securities in the index that in the aggregate account for no more than 10% of the weight of the index may have a minimum market capitalization of only \$50 million;
- (4) The average daily trading volume in each of the preceding six months for each component security in the index is at least 45,500 shares, except that each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index may have an average daily trading volume of only 22,750 shares for each of the last six months;
- (5) In a capitalization-weighted index, the lesser of: (1) the five highest weighted component securities in the index each have had an average daily trading volume of at least 90,000 shares over the past six months; or (2) the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of component securities in the index each have had an average daily trading volume of at least 90,000 shares over the past six months;
- (6) Subject to subparagraphs (4) and (5) above, the component securities that account for at least 90% of the total index weight and at least 80% of the total number of component securities in the index must meet the requirements of Rule 5.3 applicable to individual underlying securities;

(7)

- (i) Each component security in the index is a "reported security" as defined in Rule 11Aa3-1 under the Exchange Act; and
- (ii) Foreign securities or ADRs that are not subject to comprehensive surveillance sharing agreements do not represent more than 20% of the weight of the index;
- (8) The current underlying index value will be reported at least once every fifteen seconds during the time the index options are traded on the Exchange;
- (9) An equal dollar-weighted index will be rebalanced at least once every quarter;
- (10) If the underlying index is maintained by a broker-dealer, the index is calculated by a third party who is not a broker-dealer, and the broker-dealer has in place an information barrier around its personnel who have access to information concerning changes in and adjustments to the index;

- (11) Each component security in the index is registered pursuant to Section 12 of the Exchange Act; and
- (12) Cash settled index options are designated as A.M.-settled options.
- (e) The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (d) above:
 - (1) The index meets the criteria of paragraph (d)(1) of this Rule;
 - (2) Subject to subparagraphs (4) and (9) below, the component securities that account for at least 90% of the total index weight and at least 80% of the total number of component securities in the index must meet the requirements of Rule 5.3;
 - (3) Each component security in the index has a market capitalization of at least \$75 million, except that each of the lowest weighted component securities that in the aggregate account for no more than 10% of the weight of the index may have a market capitalization of only \$50 million;
 - (4) The average daily trading volume in each of the preceding six months for each component security in the index is at least 22,750 shares, except that each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index may have an average daily trading volume of at least 18,200 shares for each of the last six months;
 - (5) Each component security in the index is a "reported security" as defined in Rule 11Aa3-1 under the Exchange Act; and
 - (6) Foreign securities or ADRs thereon that are not subject to comprehensive surveillance sharing agreements do not represent more than 20% of the weight of the index;
 - (7) The current underlying index value will be reported at least once every fifteen seconds during the time the index options are traded on the Exchange;
 - (8) If the underlying index is maintained by a broker-dealer, the index is calculated by a third party who is not a broker-dealer, and the broker-dealer has in place an information barrier around its personnel who have access to information concerning changes in and adjustments to the index;
 - (9) In a capitalization-weighted index the lesser of: (1) the five highest weighted component securities in the index each have had an average daily trading volume of at least 45,500 shares over the past six months; or (2) the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of stocks in the index each have had an average daily trading volume of at least 45,500 shares over the past six months;

- (10) The total number of component securities in the index may not increase or decrease by more than 33 1/3% from the number of component securities in the index at the time of its initial listing;
- (11) Trading volume of each component security in the index must be at least 500,000 shares for each of the last six months, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index, trading volume must be at least 400,000 shares for each of the last six months;
- (12) In a capitalization-weighted index, the lesser of the five highest weighted component securities in the index or the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of stocks in the index each have had an average monthly trading volume of at least 1,000,000 shares over the past six months;
- (13) Each component security in the index is registered pursuant to Section 12 of the Exchange Act;
- (14) In an approximate equal-dollar weighted index, the index must be reconstituted and rebalanced if the notional value of the largest component is at least twice the notional volume of the smallest component for fifty percent or more of the trading days in the three months prior to December 31 of each year. For purposes of this provision the "notional value" is the market price of the component times the number of shares of the underlying component in the index. Reconstitution and rebalancing are also mandatory if the number of components in the index is greater than five at the time of rebalancing. The Exchange reserves the right to rebalance quarterly at its discretion;
- (15) In a modified equal-dollar weighted index the Exchange will re-balance the index quarterly;
- (16) In a share-weighted index, if a share-weighted Micro Narrow-Based Index fails to meet the maintenance listing standards under Rule 24.2(e), the Exchange will not re-balance the index, will restrict trading in existing option series to closing transactions, and will not issue additional series for that index; and
- (17) In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless such failure is determined by the Exchange not to be significant and the Commission concurs in that determination, or unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.
- (f) Notwithstanding paragraph (a) above, the Exchange may trade options on a broad-based index pursuant to Rule 19b-4(e) of the Exchange Act, if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 24.1(i)(1);

- (2) Options on the index are designated as A.M.-settled;
- (3) The index is capitalization-weighted, modified capitalization-weighted, price-weighted, or equal dollar-weighted;
- (4) The index consists of 50 or more component securities;
- (5) Component securities that account for at least ninety-five percent (95%) of the weight of the index have a market capitalization of at least \$75 million, except that component securities that account for at least sixty-five percent (65%) of the weight of the index have a market capitalization of at least \$100 million;
- (6) Component securities that account for at least eighty percent (80%) of the weight of the index satisfy the requirements of Rule 5.3 applicable to individual underlying securities;
- (7) Each component security that accounts for at least one percent (1%) of the weight of the index has an average daily trading volume of at least 90,000 shares during the last six month period;
- (8) No single component security accounts for more than ten percent (10%) of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than thirty-three percent (33%) of the weight of the index;
- (9) Each component security is an NMS stock;
- (10) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than twenty percent (20%) of the weight of the index;
- (11) The current index value is widely disseminated at least once every fifteen (15) seconds by the Options Price Reporting Authority, CTA/CQ, NIDS or one or more major market data vendors during the time options on the index are traded on the Exchange;
- (12) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent System Capacity Advisor allocation and the number of new messages per second expected to be generated by options on such index;
- (13) An equal dollar-weighted index is rebalanced at least once every calendar quarter;
- (14) If an index is maintained by a broker-dealer, the index is calculated by a third-party who is not a broker-dealer, and the broker-dealer has erected an informational barrier around its personnel who have access to information concerning changes in, and adjustments to, the index;
- (15) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.

- (g) The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (f) above:
 - (1) The requirements set forth in subparagraphs (f)(1) (f)(3) and (f)(9) (f)(15) must continue to be satisfied. The requirements set forth in subparagraphs (f)(5) (f)(8) must be satisfied only as of the first day of January and July in each year;
 - (2) The total number of component securities in the index may not increase or decrease by more than ten percent (10%) from the number of component securities in the index at the time of its initial listing;

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless the continued listing of the class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

... Interpretations and Policies:

- .01 Initial and Maintenance Listing Criteria for MSCI EAFE Index (EAFE), MSCI Emerging Markets Index (EM), FTSE Emerging Index (FTSE Emerging), and FTSE Developed Europe Index (FTSE Developed) Index Options.
- (a) The Exchange may trade EAFE, EM, FTSE Emerging, and FTSE Developed options if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 24.1(i)(1);
 - (2) Options on the index are designated as P.M.-settled index options;
 - (3) The index is capitalization-weighted, price-weighted, modified capitalization-weighted or equal dollar-weighted;
 - (4) The index consists of 500 or more component securities;
 - (5) All of the component securities of the index will have a market capitalization of greater than \$100 million;
 - (6) No single component security accounts for more than fifteen percent (15%) of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than fifty percent (50%) of the weight of the index;
 - (7) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than: (i) twenty-five percent (25%) of the weight of the EAFE Index, (ii) twenty-seven and a half percent (27.5%) of the weight of the EM Index, (iii) thirty-two and a half percent (32.5%) of the weight of the FTSE Developed Index, and (iv) thirty-five percent (35%) of the weight of the FTSE Emerging Index;

- (8) During the time options on the index are traded on the Exchange, the current index value is widely disseminated at least once every fifteen (15) seconds by one or more major market data vendors. However, the Exchange may continue to trade EAFE, FTSE Developed, and FTSE Emerging options after trading in all component securities has closed for the day and the index level is no longer widely disseminated at least once every fifteen (15) seconds by one or more major market data vendors, provided that EAFE, FTSE Developed, and FTSE Emerging futures contracts, respectively, are trading and prices for those contracts may be used as a proxy for the current index value;
- (9) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent System Capacity Advisor (ISCA) allocation and the number of new messages per second expected to be generated by options on such index; and
- (10) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.
- (b) The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph .01(a).
 - (1) The conditions set forth in subparagraphs .01(a) (1), (2), (3), (4), (8), (9) and (10) must continue to be satisfied. The conditions set forth in subparagraphs .01(a)(5) and (6) must be satisfied only as of the first day of January and July in each year. The conditions set forth in subparagraph .01(a)(7) must be satisfied as of the first day of the month following the Reporting Authority's review of the weighting of the constituents in the applicable index but in no case less than a quarterly basis;
 - (2) The total number of component securities in the index may not increase or decrease by more than thirty-five percent (35%) from the number of component securities in the index at the time of its initial listing, except for the EM Index, in which the total number of component securities in the EM Index may not increase or decrease by more than ten percent (10%) over the last six month period.

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

- .02 Initial and Maintenance Listing Criteria for FTSE 100 Index (1/10 th) Options (FTSE 100 options).
- (a) The Exchange may trade FTSE 100 options if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 24.1(i)(1);
 - (2) Options on the index are designated as A.M.-settled index options;

- (3) The index is capitalization-weighted, price-weighted, modified capitalization-weighted or equal dollar-weighted;
- (4) The index consists of 90 or more component securities;
- (5) Each of the component securities of the index will have a market capitalization of greater than \$100 million;
- (6) No single component security accounts for more than fifteen percent (15%) of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than fifty percent (50%) of the weight of the index;
- (7) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than twenty percent (20%) of the weight of the FTSE 100 Index;
- (8) During the time options on the index are traded on the Exchange, the current index value is widely disseminated at least once every fifteen (15) seconds by one or more major market data vendors. However, the Exchange may continue to trade FTSE 100 options after trading in all component securities has closed for the day and the index level is no longer widely disseminated at least once every fifteen (15) seconds by one or more major market data vendors, provided that FTSE 100 futures contracts are trading and prices for those contracts may be used as a proxy for the current index value;
- (9) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent System Capacity Advisor (ISCA) allocation and the number of new messages per second expected to be generated by options on such index; and
- (10) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.
- (b) The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph .02(a).
 - (1) The conditions set forth in subparagraphs .02(a) (1), (2), (3), (4), (8), (9) and (10) must continue to be satisfied. The conditions set forth in subparagraphs .02(a)(5) and (6) must be satisfied only as of the first day of January and July in each year. The conditions set forth in subparagraph .02(a)(7) must be satisfied as of the first day of the month following the Reporting Authority's review of the weighting of the constituents in the applicable index but in no case less than a quarterly basis;
 - (2) The total number of component securities in the index may not increase or decrease by more than ten percent (10%) from the number of component securities in the index at the time of its initial listing.

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of

that class unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

- .03 Initial and Maintenance Listing Criteria for FTSE China 50 Index (1/100th) Options (China 50 options).
- (a) The Exchange may trade China 50 options if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 24.1(i)(1);
 - (2) Options on the index are designated as A.M.-settled index options;
 - (3) The index is capitalization-weighted, price-weighted, modified capitalization-weighted or equal dollar-weighted;
 - (4) The index consists of 45 or more component securities;
 - (5) Each of the component securities of the index will have a market capitalization of greater than \$100 million;
 - (6) No single component security accounts for more than fifteen percent (15%) of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than fifty percent (50%) of the weight of the index;
 - (7) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than twenty percent (20%) of the weight of the FTSE China 50 Index;
 - (8) The Exchange may continue to trade China 50 options after trading in all component securities has closed for the day and the index level is no longer widely disseminated at least once every fifteen (15) seconds by one or more major market data vendors, provided that China 50 futures contracts are trading and prices for those contracts may be used as a proxy for the current index value;
 - (9) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent System Capacity Advisor (ISCA) allocation and the number of new messages per second expected to be generated by options on such index; and
 - (10) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.
- (b) The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph .03(a).
 - (1) The conditions set forth in subparagraphs .03(a) (1), (2), (3), (4), (8), (9) and (10) must continue to be satisfied. The conditions set forth in subparagraphs .03(a)(5) and (6) must be satisfied only as of the first day of January and July in each year. The conditions set forth in

subparagraph .03(a)(7) must be satisfied as of the first day of the month following the Reporting Authority's review of the weighting of the constituents in the applicable index but in no case less than a quarterly basis;

(2) The total number of component securities in the index may not increase or decrease by more than ten percent (10%) from the number of component securities in the index at the time of its initial listing.

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

Rule 24.3. Dissemination of Information

- (a) The Exchange shall disseminate or shall assure that the current index value is disseminated after the close of Regular Trading Hours and from time-to-time on days on which transactions in index options are made on the Exchange.
- (b) The Exchange shall maintain, in files available to the public, information identifying the stocks whose prices are the basis for calculation of the index and the method used to determine the current index value.

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[Rule 24.9. Terms of Index Option Contracts

(a) General.

- (1) Exercise Prices. The Exchange shall determine fixed-point intervals of exercise prices for call and put options.
- (2) Expiration Months and Weeks. Index option contracts may expire at three-month intervals, in consecutive months or in consecutive weeks (as specified by class below).

The Exchange may:

- list up to six standard monthly expirations at any one time in a class, but will not list index options that expire more than 12 months out;
- list up to 12 standard monthly expirations at any one time for any class that the Exchange (as the Reporting Authority) uses to calculate a volatility index and for CBOE S&P 500 AM/PM Basis, EAFE, EM, FTSE Emerging, FTSE Developed, FTSE 100, China 50, and S&P Select Sector Index (SIXM, SIXE, SIXT, SIXV, SIXU, SIXR, SIXI, SIXY, SIXB, and SIXRE, and SIXC) options;
- list up to 12 consecutive weekly expirations in VXST options; and

- list up to six weekly expirations and up to 12 standard (monthly) expirations in VIX options. The six weekly expirations shall be for the nearest weekly expirations from the actual listing date and weekly expirations may not expire in the same week in which standard (monthly) VIX options expire. Standard (monthly) expirations in VIX options are not counted as part of the maximum six weekly expirations permitted for VIX options.
- (A) Short Term Option Series Program. Notwithstanding the preceding restriction, after an index option class has been approved for listing and trading on the Exchange, the Exchange may open for trading on any Thursday or Friday that is a business day ("Short Term Option Opening Date") series of options on that class that expire at the close of business on each of the next five Fridays that are business days and are not Fridays in which monthly options series or Quarterly Options Series expire ("Short Term Option Expiration Dates"). The Exchange may have no more than a total of five Short Term Option Expiration Dates for each series. If the Exchange is not open for business on the respective Thursday or Friday, the Short Term Option Opening Date will be the first business day immediately prior to that respective Thursday or Friday. Similarly, if the Exchange is not open for business on the Friday of the following business week, the Short Term Option Expiration Date will be the first business day immediately prior to that Friday. Regarding Short Term Option Series:
 - (i) Classes. The Exchange may select up to fifty currently listed option classes on which Short Term Option Series may be opened on any Short Term Option Opening Date. In addition to the fifty-option class restriction, the Exchange also may list Short Term Option Series on any option classes that are selected by other securities exchanges that employ a similar program under their respective rules. For each index option class eligible for participation in the Short Term Option Series Program, the Exchange may open up to 30 Short Term Option Series on index options for each expiration date in that class. The Exchange may also open Short Term Option Series that are opened by other securities exchanges in option classes selected by such exchanges under their respective short term option rules.
 - (ii) Expiration. No Short Term Option Series on an index option class may expire in the same week during which any monthly option series on the same index class expire or, in the case of Quarterly Options Series or QIXs, on an expiration that coincides with an expiration of Quarterly Option Series or QIXs on the same index class.
 - (iii) Initial Series. The Exchange may open up to 20 initial series for each option class that participates in the Short Term Options Series Program. The strike price of each Short Term Option Series will be fixed at a price per share, with approximately the same number of strike prices being opened above and below the calculated value of the underlying index at about the time that the Short Term Option Series are initially opened for trading on the Exchange (e.g., if seven series are initially opened, there will be at least three

strike prices above and three strike prices below the value of the underlying security or calculated index value). Any strike prices listed by the Exchange shall be within thirty percent (30%) above or below the current value of the underlying index.

- (iv) Additional Series. The Exchange may open up to 10 additional series for each open class that participates in the Short Term Option Series Program when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the current value of the underlying index moves substantially from the exercise price or prices of the series already opened. Any additional strike prices listed by the Exchange shall be within thirty percent (30%) above or below the current value of the underlying index. The Exchange may also open additional strike prices of Short Term Option Series that are more than 30% above or below the current value of the underlying index provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In the event that the underlying index has moved such that there are no series that are at least 10% above or below the current value of the underlying index and all existing series have open interest, the Exchange may list additional series, in excess of the thirty series per class limit set forth in Rule 24.9(a)(2)(A)(i), that are between 10% and 30% above or below the value of the underlying index. The opening of the new Short Term Option Series shall not affect the series of options of the same class previously opened. Notwithstanding any other provisions in this Rule 24.9, Short Term Option Series may be added up to, and including on, the last trading day for that options series.
- (v) Strike Interval. The interval between strike prices on Short Term Option Series may be: (1) \$0.50 or greater where the strike price is less than \$75, and \$1 or greater where the strike price is between \$75 and \$150 for all index classes that participate in the Short Term Option Series Program; or (2) \$0.50 for index classes that trade in one dollar increments in non-Short Term Options and that participate in the Short Term Option Series Program. A non-Short Term Option that is on an index class that has been selected to participate in the Short Term Option Series Program is referred to as a "Related non-Short Term Option."
- (vi) Delisting. In the event that the underlying index has moved such that there are no series that are at least 10% above or below the current value of the underlying index, the Exchange will delist any series with no open interest in both the call and the put series having a: (i) strike higher than the highest price with open interest in the put and/or call series for a given expiration week; and (ii) strike lower than the lowest strike price with open interest in the put and/or the call series for a given expiration week, so as to

list series that are at least 10% but not more than 30% above or below the current value of the underlying index.

Related non-Short Term Option series shall be opened during the month prior to expiration in the same manner as permitted in Rule 24.9(a)(2)(A) and in the same strike price intervals that are permitted in this Rule 24.9(a)(2)(A)(v).

- (B) Quarterly Options Series Program. Notwithstanding the preceding restriction, the Exchange may list and trade options series that expire at the close of business on the last business day of a calendar quarter ("Quarterly Options Series").
 - (i) Classes. The Exchange may list Quarterly Options Series for up to five (5) currently listed options classes that are either index options or options on ETFs. In addition, the Exchange may also list Quarterly Options Series on any options classes that are selected by other securities exchanges that employ a similar program under their respective rules.
 - (ii) Expiration. The Exchange may list series that expire at the end of the next consecutive four (4) calendar quarters, as well as the fourth quarter of the next calendar year. For example, if the Exchange is trading Quarterly Options Series in the month of May 2009, it may list series that expire at the end of the second, third, and fourth quarters of 2009, as well as the first and fourth quarters of 2010. Following the second quarter 2009 expiration, the Exchange could add series that expire at the end of the second quarter of 2010.
 - (iii) Settlement. Quarterly Options Series shall be P.M. settled.
 - (iv) Initial Series. The strike price of each Quarterly Options Series will be fixed at a price per share, with at least two, but no more than five, strike prices above and at least two, but no more than five, strike prices below the value of the underlying index at about the time that a Quarterly Options Series is opened for trading on the Exchange. The Exchange shall list strike prices for Quarterly Options Series that are reasonably related to the current index value of the underlying index to which such series relates at about the time such series of options is first opened for trading on the Exchange. The term "reasonably related to the current index value of the underlying index" means that the exercise price is within thirty percent (30%) of the current index value.
 - (v) Additional Series. The Exchange may open for trading additional Quarterly Options Series of the same class when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the market price of the underlying security moves substantially from the initial exercise price or prices. The Exchange may also open for trading additional Quarterly Options Series that are more than thirty percent (30%)

of the current index value, provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate, or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision.

The Exchange may open additional strike prices of a Quarterly Options Series that are above the value of the underlying index provided that the total number of strike prices above the value of the underlying index is no greater than five. The Exchange may open additional strike prices of a Quarterly Options Series that are below the value of the underlying index provided that the total number of strike prices below the value of the underlying index is no greater than five. The opening of any new Quarterly Options Series shall not affect the series of options of the same class previously opened.

- (vi) Strike Interval. The interval between strike prices on Quarterly Options Series shall be the same as the strike prices for series in that same index option class that expire in accordance with the normal monthly expiration cycle.
- (3) "European-Style Exercise". The following European-style index options, some of which are A.M.-settled as provided in paragraph (a)(4), are approved for trading on the Exchange:
 - (i) Standard & Poor's 500 Stock Index.
 - (ii) FT-SE (U.K.) 100 Stock Index.
 - (iii) Cboe BioTech Index.
 - (iv) FT-SE Eurotrack 200 Stock Index.
 - (v) Russell 2000 Index
 - (vi) S&P Transportation Index.
 - (vii) S&P Retail Index.
 - (viii) S&P Health Care Index.
 - (ix) S&P Banking Index.
 - (x) Standard & Poor's 100 Stock Index.
 - (xi) S&P Chemicals Index.
 - (xii) S&P Insurance Index.
 - (xiii) Cboe Environmental Index.

- (xiv) Cboe Computer Software Index.
- (xv) S&P 500/Barra Growth Index.
- (xvi) S&P 500/Barra Value Index.
- (xvii) Nasdaq 100.
- (xviii) Cboe Gaming Index.
- (xix) Cboe Telecommunications Index.
- (xx) Cboe S&P 500 Three-Month Realized Variance.
- (xxi) Cboe S&P 500 Three-Month Realized Volatility.
- (xxii) Mini-SPX Index.
- (xxiii) Cboe Equity VIX on Apple (VXAPL).
- (xxiv) Cboe Equity VIX on Amazon (VXAZN).
- (xxv) Cboe Equity VIX on Goldman Sachs (VXGS).
- (xxvi) Cboe Equity VIX on Google (VXGOG).
- (xxvii) Cboe Emerging Markets Index.
- (xxviii) Cboe Emerging Asian Markets Index.
- (xxix) Cboe Gold ETF Volatility Index ("GVZ").
- (xxx) Cboe Equity VIX on IBM (VXIBM).
- (xxxi) S&P SmallCap 600 Index.
- (xxxii) Cboe Latin 15 Index.
- (xxxiii) Cboe Technology Index.
- (xxxiv) Cboe S&P 500 BuyWrite Index (1/10th value).
- (xxxv) Mexico 30 Index.
- (xxxvi) Cboe Germany 25 Index.
- (xxxvii) Cboe Automotive Index.
- (xxxviii) Cboe Internet Index.

- (xxxix) Cboe Oil Index.
- (xl) Cboe Gold Index.
- (xli) Cboe Computer Networking Index.
- (xlii) Cboe PC Index.
- (xliii) S&P 500 Dividend Index.
- (xliv) GSTI Composite Index.
- (xlv) GSTI Internet Index.
- (xlvi) GSTI Software Index.
- (xlvii) GSTI Semiconductor Index.
- (xlviii) GSTI Hardware Index.
- (xlix) GSTI Multimedia Networking Index.
- (1) GSTI Services Index.
- (li) Morgan Stanley Multinational Company Index.
- (lii) Reduced Value NYSE Composite Index.
- (liii) Packaged Butterfly Spreads.
- (liv) Packaged Vertical Spreads.
- (lv) Dow Jones Industrial Average.
- (lvi) Dow Jones Transportation Average.
- (lvii) Dow Jones Utility Average.
- (lviii) Lipper Analytical/Salomon Bros. Growth Fund Index
- (lix) Lipper Analytical/Salomon Bros. Growth & Income Fund Index
- (lx) Dow Jones High Yield Select 10 Index.
- (lxi) Dow Jones Equity REIT Index.
- (lxii) Dow Jones E*Commerce Index.
- (lxiii) Cboe Euro 25 Index.

- (lxiv) Cboe Asian 25 Index.
- (lxv) Russell 1000 Index.
- (lxvi) Russell 1000 Growth Index.
- (lxvii) Russell 1000 Value Index.
- (lxviii) Russell 2000 Growth Index.
- (lxix) Russell 2000 Value Index.
- (lxx) Russell 3000 Index.
- (lxxi) Russell 3000 Growth Index.
- (lxxii) Russell 3000 Value Index.
- (lxxiii) Russell Midcap Index.
- (lxxiv) Russell Midcap Growth Index.
- (lxxv) Russell Midcap Value Index.
- (lxxvi) Russell Top 200 Index.
- (lxxvii) Russell Top 200 Growth Index.
- (lxxviii) Russell Top 200 Value Index.
- (lxxix) Cboe China Index.
- (lxxx) Cboe Volatility Index® (VIX®).
- (lxxxi) Cboe Nasdaq 100® Volatility Index (VXN®).
- (lxxxii) Cboe Increased-Value Volatility Index®.
- (lxxxiii) Cboe Increased-Value Nasdaq 100® Volatility Index.
- (lxxxiv) Cboe Increased-Value Dow Jones Industrial Average® Volatility Index.
- (lxxxv) Cboe Russell 2000 Volatility Index SM (RVX SM).
- (lxxxvi) Cboe PowerPacks SM Bank Index
- (lxxxvii) Cboe PowerPacks SM Biotechnology Index
- (lxxxviii) Cboe PowerPacks SM Gold Index

- (lxxxix) Cboe PowerPacks SM Internet Index
- (xc) Cboe PowerPacks SM Iron & Steel Index
- (xci) Cboe PowerPacks SM Oil Index
- (xcii) Cboe PowerPacks SM Oil Services Index
- (xciii) Cboe PowerPacks SM Pharmaceuticals Index
- (xciv) Cboe PowerPacks SM Retail Services Index
- (xcv) Cboe PowerPacks SM Semiconductor Services Index
- (xcvi) Cboe PowerPacks SM Technology Services Index
- (xcvii) Cboe PowerPacks SM Telecom Services Index
- (xcviii) Cboe Crude Oil ETF Volatility Index (OVX).
- (xcix) Cboe Emerging Markets ETF Volatility Index (VXEEM).
- (c) Cboe China ETF Volatility Index (VXFXI).
- (ci) Cboe Brazil ETF Volatility Index (VXEWZ).
- (cii) Cboe Gold Miners ETF Volatility Index (VXGDX).
- (ciii) Cboe Energy Sector ETF Volatility Index (VXXLE).
- (civ) Cboe Silver ETF Volatility Index (VXSLV).
- (cv) Cboe S&P 500 AM/PM Basis (P.M.-settled)
- (cvi) Reserved.
- (cvii) Cboe Short-Term Volatility Index (VXST)
- (cviii) MSCI EAFE Index (P.M.-settled)
- (cix) MSCI Emerging Markets Index (P.M.-settled)
- (cx) FTSE 100 Index (1/10 th)
- (cxi) FTSE China 50 Index (1/100 th)
- (cxii) FTSE Emerging Index
- (cxiii) FTSE Developed Europe Index

(cxiv) S&P Financial Select Sector Index (SIXM)

(cxv) S&P Energy Select Sector Index (SIXE)

(cxvi) S&P Technology Select Sector Index (SIXT)

(cxvii) S&P Health Care Select Sector Index (SIXV)

(cxviii) S&P Utilities Select Sector Index (SIXU)

(cxix) S&P Consumer Staples Select Sector Index (SIXR)

(cxx) S&P Industrials Select Sector Index (SIXI)

(cxxi) S&P Consumer Discretionary Select Sector Index (SIXY)

(cxxii) S&P Materials Select Sector Index (SIXB)

(cxxiii) S&P Real Estate Select Sector Index (SIXRE)

(cxxiv) S&P Communication Services Select Sector Index (SIXC)

(4) A.M.-Settled Index Options. The last day of trading for non-Volatility A.M.-settled index options shall be the business day preceding the last day of trading in the underlying securities prior to expiration. The last day of trading for Volatility Index, Individual Stock or ETF Based Volatility Index options that measure a 30-day volatility period is governed by subparagraph (5) below and the last day of trading for VXST options is governed by subparagraph (6) below. The current index value at the expiration of an A.M.-settled index option shall be determined, for all purposes under these Rules and the Rules of the Clearing Corporation, on the last day of trading in the underlying securities prior to expiration, by reference to the reported level of such index as derived from the opening prices (intra-day auction prices in the case of FTSE 100 options and closing prices in the case of China 50 options) of the underlying securities on such day, as determined by the market for such security selected by the Reporting Authority pursuant to Interpretation and Policy .09 to Rule 24.9, except that in the event that the primary market for an underlying security does not open for trading, halts trading prematurely, or otherwise experiences a disruption of normal trading on that day, or in the event that the primary market for an underlying security is open for trading on that day, but that particular security does not open for trading, halts trading prematurely, or otherwise experiences a disruption of normal trading on that day, the price of that security shall be determined, for the purposes of calculating the current index value at expiration, as set forth in Rule 24.7(e). The current index level at the expiration of an A.M.- settled S&P 500 Dividend Index option shall be a special quotation of the S&P 500 Dividend Index as determined by the Reporting Authority pursuant to Interpretation and Policy .09 to Rule 24.9, except that in the event that the Reporting Authority is unable to calculate a special quotation of the S&P 500 Dividend Index, the special quotation shall be determined, for the purposes of calculating the current index value at expiration, as set forth in Rule 24.7(e).

The following A.M.-settled index options are approved for trading on the Exchange:

- (i) Standard & Poor's 500 Stock Index.
- (ii) Cboe BioTech Index.
- (iii) Russell 2000 Index.
- (iv) S&P Transportation Index.
- (v) S&P Retail Index.
- (vi) S&P Health Care Index.
- (vii) S&P Banking Index.
- (viii) Cboe S&P 500 BuyWrite Index (1/10th value).
- (ix) S&P Chemicals Index.
- (x) S&P Insurance Index.
- (xi) Cboe Environmental Index.
- (xii) Cboe Computer Software Index.
- (xiii) S&P 500/Barra Growth Index.
- (xiv) S&P 500/Barra Value Index.
- (xv) S&P 500 Dividend Index.
- (xvi) Cboe Gaming Index.
- (xvii) Cboe Telecommunications Index.
- (xviii) Cboe S&P 500 Three-Month Realized Variance.
- (xix) Cboe S&P 500 Three-Month Realized Volatility.
- (xx) Mini-SPX Index.
- (xxi) Cboe Gold ETF Volatility Index ("GVZ").
- (xxii) Cboe Equity VIX on Apple (VXAPL).
- (xxiii) Cboe Equity VIX on Amazon (VXAZN).
- (xxiv) Cboe Equity VIX on Goldman Sachs (VXGS).

- (xxv) Cboe Emerging Markets Index.
- (xxvi) Cboe Emerging Asian Markets Index.
- (xxvii) [Reserved.]
- (xxviii) S&P SmallCap 600 Index.
- (xxix) Cboe Latin 15 Index.
- (xxx) Cboe Technology Index.
- (xxxi) Cboe Automotive Index.
- (xxxii) Cboe Internet Index.
- (xxxiii) Cboe Gold Index.
- (xxxiv) Cboe Oil Index.
- (xxxv) Cboe Computer Networking Index.
- (xxxvi) Cboe PC Index.
- (xxxvii) GSTI Composite Index.
- (xxxviii) GSTI Internet Index.
- (xxxix) GSTI Software Index.
- (xl) GSTI Semiconductor Index.
- (xli) GSTI Hardware Index.
- (xlii) GSTI Multimedia Networking Index.
- (xliii) GSTI Services Index.
- (xliv) Morgan Stanley Multinational Company Index.
- (xlv) Reduced Value NYSE Composite Index.
- (xlvi) Dow Jones Industrial Average.
- (xlvii) Dow Jones Transportation Average.
- (xlviii) Dow Jones Utility Average.
- (xlix) Dow Jones High Yield Select 10 Index.

- (1) Dow Jones Equity REIT Index.
- (li) Dow Jones E*Commerce Index.
- (lii) Cboe Euro 25 Index.
- (liii) Cboe Asian 25 Index.
- (liv) Russell 1000 Index.
- (lv) Russell 1000 Growth Index.
- (lvi) Russell 1000 Value Index.
- (lvii) Russell 2000 Growth Index.
- (lviii) Russell 2000 Value Index.
- (lix) Russell 3000 Index.
- (lx) Russell 3000 Growth Index.
- (lxi) Russell 3000 Value Index.
- (lxii) Russell Midcap Index.
- (lxiii) Russell Midcap Growth Index.
- (lxiv) Russell Midcap Value Index.
- (lxv) Russell Top 200 Index.
- (lxvi) Russell Top 200 Growth Index.
- (lxvii) Russell Top 200 Value Index.
- (lxviii) Cboe China Index.
- (lxix) Cboe Volatility Index® (VIX®).
- (lxx) Cboe Nasdaq 100® Volatility Index (VXN®).
- (lxxi) Cboe Dow Jones Industrial Average® Volatility Index (VXD®).
- (lxxii) Cboe Increased-Value Volatility Index®.
- (lxxiii) Cboe Increased-Value Nasdaq 100® Volatility Index.
- (lxxiv) Cboe Increased-Value Dow Jones Industrial Average® Volatility Index.

- (lxxv) Cboe Russell 2000 Volatility Index SM (RVX SM).
- (lxxvi) Cboe PowerPacks SM Biotechnology Index
- (lxxvii) Cboe PowerPacks SM Gold Index
- (lxxviii) Cboe PowerPacks SM Internet Index
- (lxxix) Cboe PowerPacks SM Iron & Steel Index
- (lxxx) Cboe PowerPacks SM Oil Index
- (lxxxi) Cboe PowerPacks SM Oil Services Index
- (lxxxii) Cboe PowerPacks SM Pharmaceuticals Index
- (lxxxiii) Cboe PowerPacks SM Retail Services Index
- (lxxxiv) Cboe PowerPacks SM Semiconductor Services Index
- (lxxxv) Cboe PowerPacks SM Technology Services Index
- (lxxxvi) Cboe PowerPacks SM Telecom Services Index
- (lxxxvii) Cboe Equity VIX on Google (VXGOG).
- (lxxxviii) Cboe Equity VIX on IBM (VXIBM).
- (lxxxix) Cboe Crude Oil ETF Volatility Index (OVX).
- (xc) Cboe Emerging Markets ETF Volatility Index (VXEEM).
- (xci) Cboe China ETF Volatility Index (VXFXI).
- (xcii) Cboe Brazil ETF Volatility Index (VXEWZ).
- (xciii) Cboe Gold Miners ETF Volatility Index (VXGDX).
- (xciv) Cboe Energy Sector ETF Volatility Index (VXXLE).
- (xcv) Cboe Silver ETF Volatility Index (VXSLV).
- (xcvi) Cboe Short-Term Volatility Index (VXST)
- (xcvii) FTSE 100 Index (1/10 th)
- (xcviii) FTSE China 50 Index (1/100 th)
- (xcix) S&P Financial Select Sector Index (SIXM)

(xcviii) S&P Energy Select Sector Index (SIXE)

(xcxi) S&P Technology Select Sector Index (SIXT)

(xcxii) S&P Health Care Select Sector Index (SIXV)

(xcxiii) S&P Utilities Select Sector Index (SIXU)

(xcxiv) S&P Consumer Staples Select Sector Index (SIXR)

(xcxv) S&P Industrials Select Sector Index (SIXI)

(xcxvi) S&P Consumer Discretionary Select Sector Index (SIXY)

(xcxvii) S&P Materials Select Sector Index (SIXB)

(xcxviii) S&P Real Estate Select Sector Index (SIXRE)

(xcxix) S&P Communication Services Select Sector Index (SIXC)

- (5) Method of Determining Day that Exercise Settlement Value will be Calculated, Special Opening Quotation and Expiration Date and Last Trading Day for Options on Volatility Indexes that Measure a 30-Day Volatility Period ("Volatility Index options").
 - (A) Method of Determining Day that Exercise Settlement Value will be Calculated
 - (i) Volatility Index Options (Other than VIX Options, e.g., RVX, VXD, VXN, Individual Stock or ETF Based Volatility Index Options): The exercise settlement value of a standard (monthly) Volatility Index option for all purposes under these Rules and the Rules of the Clearing Corporation, shall be calculated on the Wednesday that is 30 days prior to the third Friday of the calendar month immediately following the month in which the standard (monthly) Volatility Index option expires. If that Wednesday or the third Friday of the month subsequent to the expiration of the standard (monthly) Volatility Index option is an Exchange holiday, the exercise settlement value shall be calculated on the business day that is 30 days prior to the Exchange business day immediately preceding that Friday.
 - (ii) Cboe Volatility Index ("VIX") Options: The exercise settlement value of a VIX option for all purposes under these Rules and the Rules of the Clearing Corporation, shall be calculated on the specific date (usually a Wednesday) identified in the option symbol for the series. If that Wednesday or the Friday that is 30 days following that Wednesday is an Exchange holiday, the exercise settlement value shall be calculated on the business day immediately preceding that Wednesday.
 - (B) Special Opening Quotation

The exercise settlement value of a Volatility Index option for such purposes shall be calculated by the Exchange as a Special Opening Quotation (SOQ) of the applicable Volatility Index using the sequence of opening prices of the options that comprise the Volatility Index . The opening price for any series in which there is no trade shall be the average of that option's bid price and ask price as determined at the opening of trading.

The "time to expiration" used to calculate the SOQ shall account for the actual number of days and minutes until expiration for the constituent option series. For example, if the Exchange announces that the opening of trading in the constituent option series is delayed, the amount of time until expiration for the constituent option series used to calculate the exercise settlement value would be reduced to reflect the actual opening time of the constituent option series. Another example would be when the Exchange is closed on a Wednesday due to an Exchange holiday, the amount of time until expiration used to calculate the exercise settlement value would be increased to reflect the extra calendar day between the day that the exercise settlement value is calculated and the day on which the constituent option series expire.

(C) Expiration Date and Last Day of Trading

The expiration date of a Volatility Index option shall be the same day that the exercise settlement value of the Volatility Index option is calculated. The last trading day for a Volatility Index option shall be the business day immediately preceding the expiration date of the Volatility Index option. When the last trading day is moved because of an Exchange holiday, the last trading day for an expiring option contract will be the day immediately preceding the last regularly scheduled trading day.

(6) Method of Determining Day that Exercise Settlement Value will be Calculated, Special Opening Quotation and Expiration Date and Last Trading Day for Cboe Options Short-Term Volatility Index (VXST) Options.

Method of Determining Day that Exercise Settlement Value will be Calculated

The exercise settlement value of a VXST option for all purposes under these Rules and the Rules of the Clearing Corporation, shall be calculated on the specific date (usually a Wednesday) identified in the option symbol for the series. If that Wednesday or the Friday in the business week following that Wednesday (i.e., nine days away) is an Exchange holiday, the exercise settlement value would be calculated on the business day immediately preceding the Wednesday.

Special Opening Quotation

The exercise settlement value of a VXST option for all purposes under these Rules and the Rules of the Clearing Corporation shall be calculated by the Exchange as a Special Opening Quotation (SOQ) of VXST using the sequence of opening prices of the options that comprise the VXST index. The opening price for any series in which there is no trade shall

be the average of that option's bid price and ask price as determined at the opening of trading.

The "time to expiration" used to calculate the SOQ shall account for the actual number of days and minutes until expiration for the constituent option series. For example, if the Exchange announces that the opening of trading in the constituent option series is delayed, the amount of time until expiration for the constituent option series used to calculate the exercise settlement value would be reduced to reflect the actual opening time of the constituent option series.

Another example would be when the Exchange is closed on a Wednesday due to an Exchange holiday, the amount of time until expiration used to calculate the exercise settlement value would be increased to reflect the extra calendar day between the day that the exercise settlement value is calculated and the day on which the constituent option series expire.

Expiration Date and Last Day of Trading

The expiration date of a VXST option shall be the same day that the exercise settlement value of the VXST option is calculated. The last trading day for a VXST option shall be the business day immediately preceding the expiration date of the VXST option. When the last trading day is moved because of an Exchange holiday, the last trading day for an expiring VXST option contract will be the day immediately preceding the last regularly scheduled trading day.

- (b) Long-Term Index Option Series ("LEAPS").
 - (1) Notwithstanding the provisions of Paragraph (a)(2) above, the Exchange may list long-term index option series that expire from 12 to 180 months from the date of issuance.
 - (A) Index LEAPS may be based on either the full or reduced value of the underlying index.
 - (B) There may be up to 10 expiration months, none further out than one-hundred eighty (180) months.
 - (2) Reduced-Value LEAPS.
 - (A) Reduced-value LEAPS on the following stock indices are approved for trading on the Exchange:
 - (i) Standard & Poor's 100 Stock Index,
 - (ii) Standard & Poor's 500 Stock Index,
 - (iii) Cboe BioTech Index, and
 - (iv) Russell 2000 Index.

- (v) S&P Transportation Index.
- (vi) S&P Retail Index.
- (vii) S&P Health Care Index.
- (viii) S&P Banking Index.
- (ix) Cboe S&P 500 BuyWrite Index.
- (x) S&P Chemicals Index.
- (xi) S&P Insurance Index.
- (xii) Cboe Environmental Index.
- (xiii) Cboe Computer Software Index.
- (xiv) FT-SE (U.K.) 100 Stock Index.
- (xv) S&P 500/Barra Growth Index.
- (xvi) S&P 500/Barra Value Index.
- (xvii) Nasdaq 100.
- (xviii) Cboe Gaming Index.
- (xix) Cboe Telecommunications Index.
- (xx)-(xxvi) [Reserved.]
- (xxvii) Cboe Emerging Markets Index.
- (xxviii) Cboe Emerging Asian Markets Index.
- (xxix)-(xxx) [Reserved.]
- (xxxi) S&P SmallCap 600 Index.
- (xxxii) Cboe Latin 15 Index.
- (xxxiii) Cboe Technology Index.
- (xxxiv) [Reserved.]
- (xxxv) Mexico 30 Index.
- (xxxvi) Cboe Germany 25 Index.

- (xxxvii) Cboe Automotive Index.
- (xxxviii) Cboe Internet Index.
- (xxxix) Cboe Gold Index.
- (xl) Cboe Oil Index.
- (xli) Cboe Computer Networking Index.
- (xlii) Cboe PC Index.
- (xliii) [Reserved.]
- (xliv) GSTI Composite Index.
- (xlv) GSTI Internet Index.
- (xlvi) GSTI Software Index.
- (xlvii) GSTI Semiconductor Index.
- (xlviii) GSTI Hardware Index.
- (xlix) GSTI Multimedia Networking Index.
- (1) GSTI Services Index.
- (li) Morgan Stanley Multinational Company Index.
- (lii) Reduced Value NYSE Composite Index.
- (liii) Dow Jones Transportation Average.
- (liv) Dow Jones Utility Average.
- (lv) Lipper Analytical/Salomon Bros. Growth Fund Index
- (lvi) Lipper Analytical/Salomon Bros. Growth & Income Fund Index
- (lvii) Dow Jones High Yield Select 10 Index.
- (Iviii) Dow Jones Equity REIT Index.
- (lix) Dow Jones E*Commerce Index.
- (lx) Russell 1000 Index.
- (lxi) Russell 1000 Growth Index.

- (lxii) Russell 1000 Value Index.
- (lxiii) Russell 2000 Growth Index.
- (lxiv) Russell 2000 Value Index.
- (lxv) Russell 3000 Index.
- (lxvi) Russell 3000 Growth Index.
- (lxvii) Russell 3000 Value Index.
- (lxviii) Russell Midcap Index.
- (lxix) Russell Midcap Growth Index.
- (lxx) Russell Midcap Value Index.
- (lxxi) Russell Top 200 Index.
- (lxxii) Russell Top 200 Growth Index.
- (lxxiii) Russell Top 200 Value Index.
- (lxxiv) Cboe China Index.
- (lxxv) Cboe PowerPacks SM Biotechnology Index
- (lxxvi) Cboe PowerPacks SM Gold Index
- (lxxvii) Cboe PowerPacks SM Internet Index
- (lxxviii) Cboe PowerPacks SM Iron & Steel Index
- (lxxix) Cboe PowerPacks SM Oil Index
- (lxxx) Cboe PowerPacks SM Oil Services Index
- (lxxxi) Cboe PowerPacks SM Pharmaceuticals Index
- (lxxxii) Cboe PowerPacks SM Retail Services Index
- (lxxxiii) Cboe PowerPacks SM Semiconductor Services Index
- (lxxxiv) Cboe PowerPacks SM Technology Services Index
- (lxxxv) Cboe PowerPacks SM Telecom Services Index
- (lxxxvi) FSTE 100 Index

(lxxxvii) FTSE China 50 Index

- (B) Expiration Months. Reduced-value LEAPS may expire at six-month intervals. When a new expiration month is listed, series may be near or bracketing the current index value. Additional series may be added when the value of the underlying index increases or decreases by ten to fifteen percent (10 to 15%).
- (c) Quarterly Index Expirations or QIXs. The Exchange may open for trading QIXs on the S&P 100, S&P 500, Mini-SPX Index, Russell 2000, and Dow Jones High Yield Select 10 stock indices. QIXs shall be subject to the provisions of paragraph (a) of this Rule except that, notwithstanding the provisions of paragraph (a)(2) of this Rule, there may be up to eight near- term quarterly expirations open for trading and, notwithstanding the provisions of paragraph (a)(4) of this Rule, QIXs on the S&P 500, Mini-SPX Index, Russell 2000 stock, and Dow Jones High Yield Select 10 stock indices shall be P.M.-settled index options. The index multiplier for QIXs may be 100 or 500.

(d)

- (1) Delayed Start Option Series. The Exchange may open for trading Delayed Start Option Series on any security index that is approved for options trading on the Exchange. The exercise price for a Delayed Start Option Series shall be fixed in accordance with subparagraph (d)(2). Until the strike setting date, a Delayed Start Option Series shall be traded with European-style exercise methodology. After the strike setting date, a Delayed Start Option Series shall have the same exercise methodology (i.e., American-style or European-style) as other options contracts in the same index class.
- (2) A Delayed Start Option Series' exercise price will be determined in relation to the closing price of the underlying index on the date on which the exercise price is fixed ("strike setting date"). The strike setting date for a particular Delayed Start Option Series shall be fixed by the Exchange prior to opening the Delayed Start Option Series ("opening date") and shall not be sooner than one month nor later than twelve months after the opening date. The expiration date shall also be fixed by the Exchange prior to the opening date and shall not exceed the period set forth in Rule 5.8(a).
 - (i) On the strike setting date, each Delayed Start Option Series shall be assigned a strike price that either is at-the-money, in-the-money by a specified amount, or out-of-the-money by a specified amount. The terms of each Delayed Start Option Series, including: (A) the determination of whether a Delayed Start Option Series shall be assigned an at-the money, in-the-money, or out-of-the-money strike price; and (B) the specified amount by which a strike price shall be established in or out-of-the-money (if applicable), shall be fixed by the Exchange on the opening date.
 - (ii) The exercise price assigned to the Delayed Start Option Series will be rounded to the lesser of the nearest 1.00 (greater than or equal to 0.50 rounds up) or such smaller increment as may be fixed by the Exchange on the opening date, provided that such increment shall not be smaller than 0.01.

- (3) Except as may otherwise be provided in this rule or as the context may otherwise require, Delayed Start Option Series shall be subject to all of the Exchange's Rules in the same manner as standard cash-settled index option series based on the same underlying index.
- (4) The Exchange's strike price interval rules shall not apply to Delayed Start Option Series.
- (5) DSOs in an index option class will be treated the same as any other options on the same index for the purpose of determining customer margin under Rule 12.3, except that spread margin will not be permitted between DSO and non-DSO options for the time period between the initial listing of a DSO and its strike setting date.
- (6) For the Delayed Start Option Series of a given index option class, the Exchange shall determine the appropriate market model, including the eligible categories of Market-Maker participants as provided in Rule 8.14, allocation algorithms, and other trading parameters. The market model for the Delayed Start Option Series of a given index option class may differ from the market model for the non-Delayed Start Option Series of the same class and may differ for the periods before and after the strike setting date.

(e) Nonstandard Expirations Pilot Program

(1) Weekly Expirations. The Exchange may open for trading Weekly Expirations on any broad-based index eligible for standard options trading to expire on any Monday, Wednesday, or Friday (other than the third Friday-of-the-month or days that coincide with an EOM expiration). Weekly Expirations shall be subject to all provisions of this Rule and treated the same as options on the same underlying index that expire on the third Friday of the expiration month; provided, however, that Weekly Expirations shall be P.M.-settled and new series in Weekly Expirations may be added up to and including on the expiration date for an expiring Weekly Expiration.

The maximum number of expirations that may be listed for each Weekly Expiration (i.e., a Monday expiration, Wednesday expiration, or Friday expiration, as applicable) in a given class is the same as the maximum number of expirations permitted in Rule 24.9 (a)(2) for standard options on the same broad-based index. Weekly Expirations need not be for consecutive Monday, Wednesday, or Friday expirations as applicable; however, the expiration date of a non-consecutive expiration may not be beyond what would be considered the last expiration date if the maximum number of expirations were listed consecutively. Weekly Expirations that are first listed in a given class may expire up to four weeks from the actual listing date. If the last trading day of a month is a Monday, Wednesday, or Friday and the Exchange lists EOMs and Weekly Expirations as applicable in a given class, the Exchange will list an EOM instead of a Weekly Expiration in the given class. Other expirations in the same class are not counted as part of the maximum number of Weekly Expirations for a broad-based index class. If the Exchange is not open for business on a respective Monday, the normally Monday expiring Weekly Expirations will expire on the following business day. If the Exchange is not open for business on a respective Wednesday or Friday, the normally Wednesday or Friday expiring Weekly Expirations will expire on the previous business day.

(2) End of Month ("EOM") Expirations. The Exchange may open for trading EOMs on any broad-based index eligible for standard options trading to expire on last trading day of the month. EOMs shall be subject to all provisions of this Rule and treated the same as options on the same underlying index that expire on the third Friday of the expiration month; provided, however, that EOMs shall be P.M.-settled and new series in EOMs may be added up to and including on the expiration date for an expiring EOM.

The maximum number of expirations that may be listed for EOMs in a given class is the same as the maximum number of expirations permitted in Rule 24.9 (a)(2) for standard options on the same broad-based index. EOM expirations need not be for consecutive end of month expirations; however, the expiration date of a non-consecutive expiration may not be beyond what would be considered the last expiration date if the maximum number of expirations were listed consecutively. EOMs that are first listed in a given class may expire up to four weeks from the actual listing date. Other expirations in the same class are not counted as part of the maximum numbers of EOM expirations for a broad-based index class.

- (3) Duration of Nonstandard Expirations Pilot Program. The Nonstandard Expirations Pilot Program shall be through November 4, 2019.
- (4) Weekly Expirations and EOM Trading Hours on the Last Trading Day. On the last trading day, transactions in expiring Weekly Expirations and EOMs may be effected on the Exchange between the hours of 8:30 a.m. (Chicago time) and 3:00 pm (Chicago time).

... Interpretations and Policies:

- .01 The procedures for adding and deleting strike prices for index options are provided in Rule 5.5 and Interpretations and Policies related thereto, as otherwise generally provided by Rule 24.9, and include the following:
- (a) The interval between strike prices will be no less than \$5.00; provided, that in the case of the following classes of index options, the interval between strike prices will be no less than \$2.50:
 - (i) Reduced-value LEAPs.
 - (ii) Russell 2000 Index, if the strike price is less than \$200.00.
 - (iii) Cboe Biotech Index.
 - (iv) Reduced-value options on the Standard & Poor's 500 Stock Index.
 - (v) S&P 500/Barra Growth Index, if the strike price is less than \$200.00.
 - (vi) S&P 500/Barra Value Index, if the strike price is less than \$200.00.
 - (vii) S&P SmallCap 600 Index, if the strike price is less than \$200.00.
 - (viii) S&P 500 Dividend Index, if the strike price exceeds 200 scaled index points.

- (ix) Cboe Germany 25 Index, if the strike price is less than \$200.00.
- (x) GSTI Composite Index, if the strike price is less than \$200.00.
- (xi) GSTI Internet Index, if the strike price is less than \$200.00.
- (xii) GSTI Software Index, if the strike price is less than \$200.00.
- (xiii) GSTI Semiconductor Index, if the strike price is less than \$200.00.
- (xiv) GSTI Hardware Index, if the strike price is less than \$200.00.
- (xv) GSTI Multimedia Networking Index, if the strike price is less than \$200.00.
- (xvi) GSTI Services Index, if the strike price is less than \$200.00.
- (xvii) Morgan Stanley Multinational Company Index, if the strike price is less than \$200.00.
- (xviii) Reduced Value NYSE Composite Index, if the strike price is less than \$200.00.
- (xix) DJTA, if the strike price is less than \$200.00.
- (xx) DJUA, if the strike price is less than \$200.00.
- (xxi) Lipper Analytical/Salomon Bros. Growth Fund Index, if the strike price is less than \$200.
- (xxii) Lipper Analytical/Salomon Bros. Growth & Income Fund Index, if the strike price is less than \$200.
- (xxiii) Dow Jones Equity REIT Index, if the strike price is less than \$200.00.
- (xxiv) Dow Jones E*Commerce Index, if the strike price is less than \$200.00.
- (xxv) Reduced-value Nasdaq 100 Index options.
- (xxvi) Cboe Euro 25 Index.
- (xxvii) Cboe Asian 25 Index.
- (xxviii) Russell 1000 Index, if the strike price is less than \$200.00.
- (xxix) Russell 1000 Growth Index, if the strike price is less than \$200.00.
- (xxx) Russell 1000 Value Index, if the strike price is less than \$200.00.
- (xxxi) Russell 2000 Growth Index, if the strike price is less than \$200.00.
- (xxxii) Russell 2000 Value Index, if the strike price is less than \$200.00.

- (xxxiii) Russell 3000 Index, if the strike price is less than \$200.00.
- (xxxiv) Russell 3000 Growth Index, if the strike price is less than \$200.00.
- (xxxv) Russell 3000 Value Index, if the strike price is less than \$200.00.
- (xxxvi) Russell Midcap Index, if the strike price is less than \$200.00.
- (xxxvii) Russell Midcap Growth Index, if the strike price is less than \$200.00.
- (xxxviii) Russell Midcap Value Index, if the strike price is less than \$200.00.
- (xxxix) Russell Top 200 Index, if the strike price is less than \$200.00.
- (xl) Russell Top 200 Growth Index, if the strike price is less than \$200.00.
- (xli) Russell Top 200 Value Index, if the strike price is less than \$200.00.
- (xlii) Cboe Volatility Index® (VIX®).
- (xliii) Cboe Nasdaq 100® Volatility Index (VXN®).
- (xliv) Cboe Dow Jones Industrial Average® Volatility Index (VXD®).
- (xlv) Cboe Increased-Value Volatility Index®.
- (xlvi) Cboe Increased-Value Nasdaq 100® Volatility Index.
- (xlvii) Cboe Increased-Value Dow Jones Industrial Average® Volatility Index.
- (xlviii) European-Style Exercise S&P 100 Index Options (XEO) (1/5 th value), if the strike price is less than \$200.00.
- (xlix) Russell 2000 Index (1/10 th value), if the strike price is less than \$200.00.
- (1) Russell 2000 Index (1/5 th value), if the strike price is less than \$200.00.
- (li) Cboe Russell 2000 Volatility Index SM (RVX SM)
- (lii) Cboe PowerPacks SM Biotechnology Index
- (liii) Cboe PowerPacks SM Gold Index
- (liv) Cboe PowerPacks SM Internet Index
- (lv) Cboe PowerPacks SM Iron & Steel Index
- (lvi) Cboe PowerPacks SM Oil Index

- (lvii) Cboe PowerPacks SM Oil Services Index
- (lviii) Cboe PowerPacks SM Pharmaceuticals Index
- (lix) Cboe PowerPacks SM Retail Services Index
- (lx) Cboe PowerPacks SM Semiconductor Services Index
- (lxi) Cboe PowerPacks SM Technology Services Index
- (lxii) Cboe PowerPacks SM Telecom Services Index
- (lxiii) Cboe Gold ETF Volatility Index ("GVZ")
- (lxiv) Cboe Equity VIX on Apple (VXAPL).
- (lxv) Cboe Equity VIX on Amazon (VXAZN).
- (lxvi) Cboe Equity VIX on Goldman Sachs (VXGS).
- (lxvii) Cboe Equity VIX on Google (VXGOG).
- (lxviii) Cboe Equity VIX on IBM (VXIBM).
- (lxix) Cboe Crude Oil ETF Volatility Index (OVX).
- (lxx) Cboe Emerging Markets ETF Volatility Index (VXEEM).
- (lxxi) Cboe China ETF Volatility Index (VXFXI).
- (lxxii) Cboe Brazil ETF Volatility Index (VXEWZ).
- (lxxiii) Cboe Gold Miners ETF Volatility Index (VXGDX).
- (lxxiv) Cboe Energy Sector ETF Volatility Index (VXXLE).
- (lxxv) MSCI EAFE Index, if the strike price is less than \$200.00.
- (lxxvi) MSCI Emerging Markets Index, if the strike price is less than \$200.00.
- (lxxvii) FTSE 100 Index (1/10 th), if the strike price is less than \$200.00
- (lxxviii) FTSE China 50 Index (1/100 th), if the strike price is less than \$200.00.
- (lxxix) FTSE Emerging Index, if the strike price is less than \$200.00.
- (lxxx) FTSE Developed Europe Index, if the strike price is less than \$200.00.

- (b) Notwithstanding the above paragraph, the interval between strike prices may be no less than \$0.50 for options based on one-one hundredth of the value of the DJIA, including for series listed under either the Short Term Options Series Program in Rule 24.9(a)(2)(A) or the EOW/EOM Pilot Program in Rule 24.9(e).
- (c) New series of index option contracts may be added up to the fifth business day prior to expiration. Notwithstanding the preceding restriction, the Exchange may list new VIX and VXST option series up to and including on the last day of trading for an expiring VIX or VXST option contract.
- (d) When new series of index options with a new expiration date are opened for trading, or when additional series of index options in an existing expiration date are opened for trading as the current value of the underlying index to which such series relate moves substantially from the exercise prices of series already opened, the exercise prices of such new or additional series shall be reasonably related to the current value of the underlying index at the time such series are first opened for trading. In the case of all classes of index options, the term "reasonably related to the current value of the underlying index" shall have the meaning set forth in Interpretation and Policy .04 under Rule 24.9.
- (e) The interval between strike prices for Cboe S&P 500 AM/PM Basis options will be \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is greater than \$200.
- (f) Notwithstanding Interpretation and Policy .01(a) to Rule 24.9, the interval between strikeprices of series of options on the Cboe S&P 500 BuyWrite Index (1/10th value) ("BXM" or the "BXM Index") will be \$1 or greater, subject to following conditions:
 - (i) Initial Series. The Exchange may list series at \$1 or greater strike price intervals on BXM options, and will list at least two strike prices above and two strike prices below the current value of the BXM Index (1/10th value) at about the time a series is opened for trading on the Exchange. The Exchange shall list strike prices for BXM options that are within 5 points from the closing value of the BXM Index (1/10th value) on the preceding day.
 - (ii) Additional Series. Additional series of the same class of BXM options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the underlying BXM Index (1/10th value) moves substantially from the initial exercise price or prices. To the extent that any additional strike prices are listed by the Exchange, such additional strike prices shall be within thirty percent (30%) above or below the closing value of the BXM Index (1/10th value). The Exchange may also open additional strike prices that are more than 30% above or below the current BXM Index (1/10th value) provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In addition to the initial listed series, the Exchange may list up to sixty (60) additional series per expiration month for each series in BXM options.
 - (iii) The Exchange shall not list LEAPS on BXM options at intervals less than \$5.

- (A) Delisting Policy. With respect to BXM options added pursuant to the above paragraphs, the Exchange will, on a monthly basis, review series that are outside a range of five (5) strikes above and five (5) strikes below the current value of the BXM Index (1/10th value), and delist series with no open interest in both the put and the call series having a:
 - (i) strike higher than the highest strike price with open interest in the put and/or call series for a given expiration month; and
 - (ii) strike lower than the lowest strike price with open interest in the put and/or call series for a given expiration month.
- (B) Notwithstanding the above referenced delisting policy, customer requests to add strikes and/or maintain strikes in BXM option series eligible for delisting shall be granted.
- (g) Notwithstanding paragraph (a), the interval between strike prices of series of Cboe S&P 500 Three-Month Realized Volatility options will \$1 or greater, subject to following conditions:
 - (i) Initial Series. The Exchange may list series at \$1 or greater strike price intervals on Cboe S&P 500 Realized Volatility options, and will list at least two strike prices above and two strike prices below the square root of the related Cboe S&P 500 Three-Month Variance futures contract price at about the time a series is opened for trading on the Exchange. The Exchange shall list strike prices for Cboe S&P 500 Realized Volatility options that are within 5 points from the square root of the related Cboe S&P 500 Three-Month Variance futures contract price on the preceding day.
 - (ii) Additional Series. Additional series of the same class of Cboe S&P 500 Three-Month Realized Volatility options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the square root of the related Cboe S&P 500 Three-Month Variance futures contract price moves substantially from the initial exercise price or prices. To the extent that any additional strike prices are listed by the Exchange, such additional strike prices shall be within thirty percent (30%) above or below the square root of the related Cboe S&P 500 Three-Month Variance futures contract price. The Exchange may also open additional strike prices that are more than 30% above or below the square root of the related Cboe Options Three-Month Variance futures contract price, provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In addition to the initial listed series, the Exchange may list up to sixty (60) additional series per expiration month for each series in Cboe S&P 500 Three-Month Realized Volatility options.
 - (iii) The Exchange shall not list LEAPS on Cboe S&P 500 Three-Month Realized Volatility options at intervals less than \$1.

- (A) Policy. With respect to Cboe S&P 500 Three-Month Realized Volatility options added pursuant to the above paragraphs, the Exchange will, on a monthly basis, review series that are outside a range of five (5) strikes above and five (5) strikes below the square root of the square root of the related Cboe S&P 500 Three-Month Variance futures contract price, and delist series with no open interest in both the put and the call series having a:
 - (i) strike higher than the highest strike price with open interest in the put and/or call series for a given expiration month; and
 - (ii) strike lower than the lowest strike price with open interest in the put and/or call series for a given expiration month.
- (B) Notwithstanding the above referenced delisting policy, customer requests to add strikes and/or maintain strikes in Cboe S&P 500 Three-Month Realized Volatility option series eligible for delisting shall be granted.
- (h) Notwithstanding paragraph (a), the interval between strike prices of series of S&P 500 Dividend Index options will be 1 point (\$1.00) or greater if the strike price is equal to or less than 200 scaled index points, subject to following conditions:
 - (i) Initial Series. The Exchange will list in-, at- and out-of-the-money strike prices, and may open for trading up to five series above and five series below the calculated forward value of the S&P 500 Dividend Index.
 - (ii) Additional Series. In response to customer demand or as the calculated forward value of the S&P 500 Dividend Index moves from the initial exercise prices of option and LEAPs series that have been opened for trading, the Exchange may open for trading up to an additional twenty series.
 - (iii) The Exchange may not open for trading series with 1 point (\$1.00) intervals within \$0.50 of an existing 2.5 point (\$2.50) strike price with the same expiration month.
 - (iv) The Exchange shall not list LEAPS on S&P 500 Dividend Index options at intervals less than \$1.
- (i) The interval between strike prices for Cboe Options Short-Term Volatility Index (VXST) options will be \$0.50 or greater where the strike price is less than \$75, \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is more than \$200.
- (j) In addition to the strike price intervals permitted under Interpretation and Policy .01(a) to Rule 24.9, the Exchange may also list series at \$1 strike price intervals for Mini-Nasdaq-100 Index ("MNX" or "Mini-NDX") options, subject to following conditions:
 - (i) Initial Series. The Exchange may list series at \$1 strike price intervals for Mini-NDX options, and will list at least two \$1 strike prices above and two \$1 strike prices below the

current value of the MNX at about the time a series is opened for trading on the Exchange. The Exchange shall list \$1 strike prices for Mini-NDX options that are within 5 points from the closing value of the MNX on the preceding day.

- (ii) Additional Series. Additional series of the same class of Mini-NDX options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the underlying MNX moves substantially from the initial exercise price or prices. To the extent that any additional \$1 strike prices are listed by the Exchange, such additional \$1 strike prices shall be within thirty percent (30%) above or below the closing value of the MNX. The Exchange may also open additional \$1 strike prices that are more than 30% above or below the current MNX value provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In addition to the initial listed series, the Exchange may list up to sixty (60) additional series at \$1 strike price intervals per expiration month for each series in Mini- NDX options.
- (iii) The Exchange shall not list LEAPS on Mini-NDX options at intervals less than \$2.50. The Exchange may not list strike prices with \$1 intervals within \$0.50 of an existing \$2.50 strike price in the same series.

- (A) Delisting Policy. With respect to Mini-NDX options added pursuant to the above paragraphs, the Exchange will, on a monthly basis, review series that are outside a range of five (5) strikes above and five (5) strikes below the current value of the MNX, and delist series with no open interest in both the put and the call series having a:
 - (i) strike higher than the highest strike price with open interest in the put and/or call series for a given expiration month; and
 - (ii) strike lower than the lowest strike price with open interest in the put and/or call series for a given expiration month.
- (B) Notwithstanding the above referenced delisting policy, customer requests to add strikes and/or maintain strikes in Mini-NDX option series eligible for delisting shall be granted.
- (C) In connection with the above referenced delisting policy, if the Exchange identifies series for delisting, the Exchange shall notify other options exchanges with similar delisting policies regarding eligible series for delisting, and shall work with such other exchanges to develop a uniform list of series to be delisted, so as to ensure uniform series delisting of multiply listed Mini-NDX options.

- (k) Notwithstanding Interpretation and Policy .01(a) to Rule 24.9, the interval between strike prices of series of Mini-Russell 2000 Index ("RMN" or "Mini-RUT") options will be \$1 or greater, subject to following conditions:
 - (i) Initial Series. The Exchange may list series at \$1 or greater strike price intervals for Mini-RUT options, if the strike price is less than \$200, and will list at least two strike prices above and two strike prices below the current value of the RMN at about the time a series is opened for trading on the Exchange. The Exchange shall list strike prices for Mini-RUT options that are within 5 points from the closing value of the RMN on the preceding day.
 - (ii) Additional Series. Additional series of the same class of Mini-RUT options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the underlying RMN moves substantially from the initial exercise price or prices. To the extent that any additional strike prices are listed by the Exchange, such additional strike prices shall be within thirty percent (30%) above or below the closing value of the RMN. The Exchange may also open additional strike prices that are more than 30% above or below the current RMN value provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In addition to the initial listed series, the Exchange may list up to sixty (60) additional series per expiration month for each series in Mini-RUT options. In all cases, however, \$1 strike prices intervals may be listed on Mini-RUT options only where the strike price is less than \$200.
 - (iii) The Exchange shall not list LEAPS on Mini-RUT options at intervals less than \$2.50.

- (A) Delisting Policy. With respect to Mini-RUT options added pursuant to the above paragraphs, the Exchange will, on a monthly basis, review series that are outside a range of five (5) strikes above and five (5) strikes below the current value of the RMN, and delist series with no open interest in both the put and the call series having a:
 - (i) strike higher than the highest strike price with open interest in the put and/or call series for a given expiration month; and
 - (ii) strike lower than the lowest strike price with open interest in the put and/or call series for a given expiration month.
- (B) Notwithstanding the above referenced delisting policy, customer requests to add strikes and/or maintain strikes in Mini-RUT option series eligible for delisting shall be granted.
- (C) In connection with the above referenced delisting policy, if the Exchange identifies series for delisting, the Exchange shall notify other options exchanges with similar delisting policies regarding eligible series for delisting, and shall work with

such other exchanges to develop a uniform list of series to be delisted, so as to ensure uniform series delisting of multiply listed Mini-RUT options.

(1)

- (i) Notwithstanding paragraph (a), the interval between strike prices for Volatility Index options (as defined in Rule 24.9(a)(5)) will be \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is greater than \$200. The Exchange shall not list LEAPS on Volatility Index options at strike price intervals less than \$1.
- (ii) Notwithstanding paragraphs (a) and (l)(i), the interval between strike prices for Cboe Volatility Index (VIX) options will be \$0.50 or greater where the strike price is less than \$75, \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is more than \$200.
- (m) Notwithstanding any other provision regarding strike prices in this rule, Related non-Short Term Option series shall be opened during the week prior to the week that such Related non-Short Term Option series expire in the same manner as permitted in Rule 24.9(a)(2)(A) and in the same strike price intervals that are permitted in this Rule 24.9(a)(2)(A)(v).
- .02 The reported level of the underlying index that is calculated by the reporting authority on the last day of trading in the underlying securities prior to expiration for purposes of determining the current index value at the expiration of an A.M.-settled index option may differ from the level of the index that is separately calculated and reported by the reporting authority and which reflects trading activity subsequent to the opening of trading in any of the underlying securities.
- .03 For capped-style index options, including index Q-CAPS, the procedures for adding exercise prices and expiration months shall be as follows:
- (a) Unless modified by the Exchange, the cap interval shall be:
 - (1) \$30.00 for CAPS on the Standard and Poor's 100 Stock Index ("S&P 100") and the Standard and Poor's 500 Stock Index ("S&P 500"),
 - (2) \$20.00 for CAPS on the Russell 2000 Index, and
 - (3) \$30.00 for Q-CAPS on the S&P 100 and the S&P 500.
- (b) Initially, one at-the-money call and put will be listed with an expiration of up to four months into the future for S&P 100 CAPS, up to one year in the future for the S&P 500 and Russell 2000 CAPS, and up to eight consecutive quarters in the future for S&P 100 and S&P 500 Q- CAPS. Additional at-the-money series may be listed every two months with expirations up to four months in the future for S&P 100 CAPS, up to one year in the future for S&P 500 and Russell 2000 CAPS, and every three months with expirations of up to eight consecutive quarters in the future for S&P 100 and S&P 500 Q-CAPS.

- (c) Series may be added to expiration months with three or more months remaining to their expiration, if there has been a 20-point or more move in the index value for S&P 100 or S&P 500, or a 10-point or more move in the index value for the Russell 2000 Index.
- .04 Notwithstanding the provisions of Interpretation .01, the Exchange may open for trading additional series of the same class of index options as the current index value of the underlying index moves substantially from the exercise price of those index options that already have been opened for trading on the Exchange. The exercise price of each series of index options opened for trading on the Exchange shall be reasonably related to the current index value of the underlying index to which such series relates at or about the time such series of options is first opened for trading on the Exchange. The term "reasonably related to the current index value of the underlying index" means that the exercise price is within 30% of the current index value. The Exchange may also open for trading additional series of index options that are more than 30% away from the current index value, provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate, or individual customers or their brokers. Market-makers trading for their own account shall not be considered when determining customer interest under this provision.
- .05 The Rules of the Clearing Corporation specify that, unless the Rules of the Exchange provide otherwise, the current index value used to settle the exercise of an index option contract shall be the closing index for the day on which the index option contract is exercised in accordance with the Rules of the Clearing Corporation or, if such day is not a business day, for the most recent business day.
- .06 The current index value of reduced-value options on the Standard & Poor's 500 Stock Index ("Mini-SPX options") shall be one-tenth (1/10) the value of the underlying index reported by the reporting authority.
- .07 Packaged Vertical Spreads will be listed with vertical spread intervals ranging from 10 to 50 points.
- .08 For Packaged Butterfly Spreads, the procedures for adding strike prices shall be as follows:
 - a. Initially, the Exchange expects to list an at-the-money strike and other strikes above and below the at-the-money at strikes reasonable related to the current index value;
 - b. New series may be added to accommodate moves in the index;
 - c. The Exchange will have the authority to determine which series will be listed.
- .09 With respect to any securities index on which options are traded on the Exchange, the source of the prices of component securities used to calculate the current index level at expiration is determined by the Reporting Authority for that index.
- .10 Reserved.
- .11 Notwithstanding Interpretations and Policies .01(a), .01(d) and .04 to Rule 24.9, the exercise prices for new and additional series of Mini-SPX options shall be listed subject to the following:

- (a) If the current value of the Mini-SPX is less than or equal to 20, the Exchange shall not list series with an exercise price of more than 100% above or below the current value of the Mini-SPX;
- (b) If the current value of the Mini-SPX is greater than 20, the Exchange shall not list series with an exercise price of more than 50% above or below the current value of the Mini-SPX; and
- (c) The lowest strike price interval that may be listed for standard Mini-SPX options is \$1, including for LEAPS, and the lowest strike price interval that may be listed for series of Mini-SPX listed under either the Short Term Option Series Program in Rule 24.9(a)(2)(A) or the EOW/EOM Pilot Program in Rule 24.9(e) is \$0.50.
- .12 \$0.50 and \$1 Strike Price Intervals for Index Options Used to Calculate Volatility Indexes. Notwithstanding Interpretation and Policy .01(a) to Rule 24.9, the Exchange may open for trading series at \$0.50 or greater strike price intervals where the strike price is less than \$75 and \$1.00 or greater strike price intervals where the strike price is between \$75 and \$150 for index options that are used to calculate a volatility index.
- .13 Notwithstanding the requirements set forth in this Rule 24.9 and the Interpretations and Policies thereunder, the Exchange may list additional expiration months on options classes opened for trading on the Exchange if such expiration months are opened for trading on at least one other registered national securities exchange.
- .14 In addition to A.M.-settled Standard & Poor's 500 Stock Index options approved for trading on the Exchange pursuant to Rule 24.9, the Exchange may also list options on the S&P 500 Index whose exercise settlement value is derived from closing prices on the last trading day prior to expiration (P.M.-settled third Friday-of-the-month SPX options series). The Exchange may also list options on the Mini-SPX Index ("XSP") whose exercise settlement value is derived from closing prices on the last trading day prior to expiration ("P.M.-settled"). P.M.- settled third Friday-of-the-month SPX options series and P.M.-settled XSP options will be listed for trading for a pilot period ending November 4, 2019.]

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[Rule 24.11. Reserved

Reserved

Rule 24.11A. Debit Put Spread Cash Account Transactions

Debit put spread positions in European-style, broad-based index options traded on the Exchange (hereinafter "debit put spreads") may be maintained in a cash account as defined by Federal Reserve Board Regulation T Section 220.8 by a public customer (whose orders would be eligible to be placed on the book under Rule 7.4(a)), provided that the following procedures and criteria are met:

(a) The customer has received Exchange approval to maintain debit put spreads in a cash account carried by a TPH organization. A customer so approved is hereinafter referred to as a "spread exemption customer".

- (b) The spread exemption customer has provided all information required on Exchange- approved forms and has kept such information current.
- (c) The customer holds a net long position in each of the stocks of a portfolio which has been previously established or in securities readily convertible, and additionally in the case of convertible bonds economically convertible, into common stocks which would comprise a portfolio. The debit put spread position must be carried in an account with a member of a self- regulatory organization participating in the Intermarket Surveillance Group.
- (d) The stock portfolio or its equivalent is composed of net long positions in common stocks in at least four industry groups and contains at least twenty stocks, none of which accounts for more than fifteen percent of the value of the portfolio (hereinafter "qualified portfolio"). To remain qualified, a portfolio must at all times meet these standards notwithstanding trading activity in the stocks.
- (e) The exemption applies to European-style broad-based index options dealt in on the Exchange to the extent the underlying value of such option position does not exceed the unhedged value of the qualified portfolio. The unhedged value would be determined as follows:
 - (1) the values of the net long or short positions of all qualifying products in the portfolio are totalled;
 - (2) for positions in excess of the standard limit, the underlying market value (a) of any economically equivalent opposite side of the market calls and puts in broad-based index options, and (b) of any opposite side of the market positions in stock index futures, options on stock index futures, and any economically equivalent opposite side of the market positions, assuming no other hedges for these contracts exist, is subtracted from the qualified portfolio; and (3) the market value of the resulting unhedged portfolio is equated to the appropriate number of exempt contracts as follows—the unhedged qualified portfolio is divided by the correspondent closing index value and the quotient is then divided by the index multiplier or 100.
- (f) A debit put spread in Exchange traded broad-based index options with European-style exercises is defined as a long put position coupled with a short put position overlying the same broad-based index and having an equivalent underlying aggregate index value, where the short put(s) expires with the long put(s), and the strike price of the long put(s) exceeds the strike price of the short put(s). A debit put spread will be permitted in the cash account as long as it is continuously associated with a qualified portfolio of securities with a current market value at least equal to the underlying aggregate index value of the long side of the debit put spread.
- (g) The qualified portfolio must be maintained with either a TPH organization, another broker-dealer, a bank, or securities depository.
- (h) The spread exemption customer shall agree promptly to provide the Exchange any information requested concerning the dollar value and composition of the customer's stock portfolio, and the current debit put spread positions.

- (i) The spread exemption customer shall agree to and any TPH organization carrying an account for the customer shall:
 - (1) comply with all Exchange rules and regulations.
 - (2) liquidate any debit put spreads prior to or contemporaneously with a decrease in the market value of the qualified portfolio, which debit put spreads would thereby be rendered excessive.
 - (3) promptly notify the Exchange of any change in the qualified portfolio or the debit put spread position which causes the debit put spreads maintained in the cash account to be rendered excessive.
- (j) If any TPH organization carrying a cash account for a spread exemption customer with a debit put spread position dealt in on the Exchange has a reason to believe that as a result of an opening options transaction the customer would violate this spread exemption, and such opening transaction occurs, then the TPH organization has violated Exchange Rule 24.11A.
- (k) Violation of any of these provisions, absent reasonable justification or excuse, shall result in withdrawal of the spread exemption and may form the basis for subsequent denial of an application for a spread exemption hereunder.

Rule 24.12. Limitation of Exchange Liability

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[Rule 24.16. Reserved

Reserved

Rule 24.17. Reserved

Reserved]

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EXHIBIT 5B

(additions are <u>underlined</u>; deletions are [bracketed])

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Rules of Cboe Exchange, Inc.

(To be effective October 7, 2019)

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CHAPTER 4. OPTIONS LISTING

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SECTION B. INDEX OPTIONS

The Rules in this Chapter 4, Section B are applicable only to index options. All other Rules also apply to the options provided for in this Chapter 4, Section B, unless otherwise provided in this Chapter 4, Section B or as the context may otherwise require.

Rule 4.10. Designation of the Index

- (a) General. The component securities of an index underlying an index option contract need not meet the requirements of Rule 4.3. Except as set forth in subparagraphs (b), (d), and (f) below, the listing of a class of index options on a new underlying index will be treated by the Exchange as a proposed rule change subject to filing with and approval by the Commission under Section 19(b) of the Exchange Act.
- (b) Narrow-Based Index Initial Listing Criteria. Notwithstanding paragraph (a) above, the Exchange may trade options on a narrow-based index pursuant to Rule 19b-4(e) of the Securities Exchange Act of 1934, if each of the following conditions is satisfied:
 - (1) The options are designated as A.M.-settled index options;
 - (2) The index is capitalization-weighted, price-weighted, equal dollar-weighted, or modified capitalization-weighted, and consists of ten or more component securities;
 - (3) Each component security has a market capitalization of at least \$75 million, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index, the market capitalization is at least \$50 million;
 - (4) Trading volume of each component security has been at least one million shares for each of the last six months, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index, trading volume has been at least 500,000 shares for each of the last six months;

- (5) In a capitalization-weighted index or a modified capitalization-weighted index, the lesser of the five highest weighted component securities in the index or the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of component securities in the index each have had an average monthly trading volume of at least 2,000,000 shares over the past six months;
- (6) No single component security represents more than 25% of the weight of the index, and the five highest weighted component securities in the index do not in the aggregate account for more than 50% (60% for an index consisting of fewer than 25 component securities) of the weight of the index;
- (7) Component securities that account for at least 90% of the weight of the index and at least 80% of the total number of component securities in the index satisfy the requirements of Rule 4.3 applicable to individual underlying securities;
- (8) All component securities are "reported securities" as defined in Rule 11A a3-1 under the Exchange Act;
- (9) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not in the aggregate represent more than 20% of the weight of the index;
- (10) The current underlying index value will be reported at least once every 15 seconds during the time the index options are traded on the Exchange;
- (11) An equal dollar-weighted index will be rebalanced at least once every calendar quarter; and
- (12) If an underlying index is maintained by a broker-dealer, the index is calculated by a third party who is not a broker-dealer, and the broker-dealer has erected a "Chinese Wall" around its personnel who have access to information concerning changes in and adjustments to the index.
- (c) Narrow-Based Index Maintenance Listing Criteria. The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (b) above:
 - (1) The conditions stated in subparagraphs (b)(1), (3), (6), (7), (8), (9), (10), (11), and (12) must continue to be satisfied, provided that the conditions stated in subparagraph (b)(6) must be satisfied only as of the first day of January and July in each year;
 - (2) The total number of component securities in the index may not increase or decrease by more than 33 1/3% from the number of component securities in the index at the time of its initial listing, and in no event may be less than nine component securities;
 - (3) Trading volume of each component security in the index must be at least 500,000 shares for each of the last six months, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of

the index, trading volume must be at least 400,000 shares for each of the last six months; and

(4) In a capitalization-weighted index or a modified capitalization-weighted index, the lesser of the five highest weighted component securities in the index or the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of stocks in the index each have had an average monthly trading volume of at least 1,000,000 shares over the past six months. In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless such failure is determined by the Exchange not to be significant and the Commission concurs in that determination, or unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

(d) *Micro Narrow-Based Security Index Initial Listing Criteria*. Notwithstanding paragraph (a) above, the Exchange may trade options on a Micro Narrow-Based security index pursuant to Rule 19b-4(e) of the Securities Exchange Act of 1934, if each of the following conditions is satisfied:

(1) The Index is a security index:

- (A) that has nine or fewer component securities;
- (B) in which a component security comprises more than 30% of the index's weighting;
- (C) in which the five highest weighted component securities in the aggregate comprise more than 60% of the index's weighting; or
- (D) in which the lowest weighted component securities comprising, in the aggregate, 25% of the index's weighting have an aggregate dollar value of average daily trading volume of less than \$50,000,000 (or in the case of an index with 15 or more component securities, \$30,000,000) except that if there are two or more securities with equal weighting that could be included in the calculation of the lowest weighted component securities comprising, in the aggregate, 25% of the index's weighting, such securities shall be ranked from lowest to highest dollar value of average daily trading volume and shall be included in the calculation based on their ranking starting with the lowest ranked security;
- (2) The index is capitalization-weighted, modified capitalization-weighted, price-weighted, share weighted, equal dollar-weighted, approximate equal-dollar weighted, or modified equal-dollar weighted;
 - (A) For the purposes of this Rule 4.10(d), an approximate equal-dollar weighted index is composed of one or more securities in which each component security will be weighted equally based on its market price on the index's selection date and the index must be reconstituted and rebalanced if the notional value of the largest component is at least twice the notional volume of the smallest component for 50%

or more of the trading days in the three months prior to December 31 of each year. For purposes of this provision the "notional value" is the market price of the component times the number of shares of the underlying component in the index. Reconstitution and rebalancing are also mandatory if the number of components in the index is greater than five at the time of rebalancing. The Exchange reserves the right to rebalance quarterly at its discretion.

- (B) For the purposes of this Rule 4.10(d), a modified equal-dollar weighted index is an index in which each underlying component represents a pre-determined weighting percentage of the entire index. Each component is assigned a weight that takes into account the relative market capitalization of the securities comprising the index. A modified equal-dollar weighted index will be balanced quarterly.
- (C) For the purposes of this Rule 4.10(d), a share-weighted index is calculated by multiplying the price of the component security by an adjustment factor. Adjustment factors are chosen to reflect the investment objective deemed appropriate by the designer of the index and will be published by the Exchange as part of the contract specifications. The value of the index is calculated by adding the weight of each component security and dividing the total by an index divisor, calculated to yield a benchmark index level as of a particular date. A share-weighted index is not adjusted to reflect changes in the number of outstanding shares of its components. A share-weighted Micro Narrow-Based index will not be re-balanced. If a share-weighted Micro Narrow-Based Index fails to meet the maintenance listing standards under Rule 4.10(e), the Exchange will restrict trading in existing option series to closing transactions and will not issue additional series for that index.
- (D) The Exchange may rebalance any Micro Narrow-Based index on an interim basis if warranted as a result of extraordinary changes in the relative values of the component securities. To the extent investors with open positions must rely upon the continuity of the options contract on the index, outstanding contracts are unaffected by rebalancings.
- (3) Each component security in the index has a minimum market capitalization of at least \$75 million, except that each of the lowest weighted securities in the index that in the aggregate account for no more than 10% of the weight of the index may have a minimum market capitalization of only \$50 million;
- (4) The average daily trading volume in each of the preceding six months for each component security in the index is at least 45,500 shares, except that each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index may have an average daily trading volume of only 22,750 shares for each of the last six months;
- (5) In a capitalization-weighted index, the lesser of: (A) the five highest weighted component securities in the index each have had an average daily trading volume of at least 90,000 shares over the past six months; or (B) the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of component

securities in the index each have had an average daily trading volume of at least 90,000 shares over the past six months;

(6) Subject to subparagraphs (4) and (5) above, the component securities that account for at least 90% of the total index weight and at least 80% of the total number of component securities in the index must meet the requirements of Rule 4.3 applicable to individual underlying securities;

(7)

- (A) Each component security in the index is a "reported security" as defined in Rule 11Aa3-1 under the Exchange Act; and
- (B) Foreign securities or ADRs that are not subject to comprehensive surveillance sharing agreements do not represent more than 20% of the weight of the index;
- (8) The current underlying index value will be reported at least once every 15 seconds during the time the index options are traded on the Exchange;
- (9) An equal dollar-weighted index will be rebalanced at least once every quarter;
- (10) If the underlying index is maintained by a broker-dealer, the index is calculated by a third party who is not a broker-dealer, and the broker-dealer has in place an information barrier around its personnel who have access to information concerning changes in and adjustments to the index;
- (11) Each component security in the index is registered pursuant to Section 12 of the Exchange Act; and
- (12) Cash settled index options are designated as A.M.-settled options.
- (e) Micro Narrow-Based Security Index Maintenance Listing Criteria. The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (d) above:
 - (1) The index meets the criteria of subparagraph (d)(1) of this Rule;
 - (2) Subject to subparagraphs (e)(4) and (9) below, the component securities that account for at least 90% of the total index weight and at least 80% of the total number of component securities in the index must meet the requirements of Rule 4.3;
 - (3) Each component security in the index has a market capitalization of at least \$75 million, except that each of the lowest weighted component securities that in the aggregate account for no more than 10% of the weight of the index may have a market capitalization of only \$50 million;
 - (4) The average daily trading volume in each of the preceding six months for each component security in the index is at least 22,750 shares, except that each of the lowest

- weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index may have an average daily trading volume of at least 18,200 shares for each of the last six months;
- (5) Each component security in the index is a "reported security" as defined in Rule 11Aa3-1 under the Exchange Act;
- (6) Foreign securities or ADRs thereon that are not subject to comprehensive surveillance sharing agreements do not represent more than 20% of the weight of the index;
- (7) The current underlying index value will be reported at least once every 15 seconds during the time the index options are traded on the Exchange;
- (8) If the underlying index is maintained by a broker-dealer, the index is calculated by a third party who is not a broker-dealer, and the broker-dealer has in place an information barrier around its personnel who have access to information concerning changes in and adjustments to the index;
- (9) In a capitalization-weighted index the lesser of: (A) the five highest weighted component securities in the index each have had an average daily trading volume of at least 45,500 shares over the past six months; or (B) the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of stocks in the index each have had an average daily trading volume of at least 45,500 shares over the past six months;
- (10) The total number of component securities in the index may not increase or decrease by more than 33 1/3% from the number of component securities in the index at the time of its initial listing;
- (11) Trading volume of each component security in the index must be at least 500,000 shares for each of the last six months, except that for each of the lowest weighted component securities in the index that in the aggregate account for no more than 10% of the weight of the index, trading volume must be at least 400,000 shares for each of the last six months;
- (12) In a capitalization-weighted index, the lesser of the five highest weighted component securities in the index or the highest weighted component securities in the index that in the aggregate represent at least 30% of the total number of stocks in the index each have had an average monthly trading volume of at least 1,000,000 shares over the past six months;
- (13) Each component security in the index is registered pursuant to Section 12 of the Exchange Act;
- (14) In an approximate equal-dollar weighted index, the index must be reconstituted and rebalanced if the notional value of the largest component is at least twice the notional volume of the smallest component for 50% or more of the trading days in the three months prior to December 31 of each year. For purposes of this provision the "notional value" is the

market price of the component times the number of shares of the underlying component in the index. Reconstitution and rebalancing are also mandatory if the number of components in the index is greater than five at the time of rebalancing. The Exchange reserves the right to rebalance quarterly at its discretion;

- (15) In a modified equal-dollar weighted index the Exchange will re-balance the index quarterly;
- (16) In a share-weighted index, if a share-weighted Micro Narrow-Based Index fails to meet the maintenance listing standards under Rule 4.10(e), the Exchange will not re-balance the index, will restrict trading in existing option series to closing transactions, and will not issue additional series for that index; and
- (17) In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless such failure is determined by the Exchange not to be significant and the Commission concurs in that determination, or unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.
- (f) Broad-Based Index Initial Listing Criteria. Notwithstanding paragraph (a) above, the Exchange may trade options on a broad-based index pursuant to Rule 19b-4(e) of the Exchange Act, if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 4.11;
 - (2) Options on the index are designated as A.M.-settled;
 - (3) The index is capitalization-weighted, modified capitalization-weighted, price-weighted, or equal dollar-weighted;
 - (4) The index consists of 50 or more component securities;
 - (5) Component securities that account for at least 95% of the weight of the index have a market capitalization of at least \$75 million, except that component securities that account for at least 65% of the weight of the index have a market capitalization of at least \$100 million;
 - (6) Component securities that account for at least 80% of the weight of the index satisfy the requirements of Rule 4.3 applicable to individual underlying securities;
 - (7) Each component security that accounts for at least 1% of the weight of the index has an average daily trading volume of at least 90,000 shares during the last six-month period;
 - (8) No single component security accounts for more than 10% of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than 33% of the weight of the index;

- (9) Each component security is an NMS stock;
- (10) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than 20% of the weight of the index;
- (11) The current index value is widely disseminated at least once every 15 seconds by the Options Price Reporting Authority, CTA/CQ, NIDS or one or more major market data vendors during the time options on the index are traded on the Exchange;
- (12) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent System Capacity Advisor allocation and the number of new messages per second expected to be generated by options on such index;
- (13) An equal dollar-weighted index is rebalanced at least once every calendar quarter;
- (14) If an index is maintained by a broker-dealer, the index is calculated by a third-party who is not a broker-dealer, and the broker-dealer has erected an informational barrier around its personnel who have access to information concerning changes in, and adjustments to, the index;
- (15) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.
- (g) Broad-Based Index Maintenance Listing Criteria. The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (f) above:
 - (1) The requirements set forth in subparagraphs (f)(1) through (f)(3) and (f)(9) through (f)(15) must continue to be satisfied. The requirements set forth in subparagraphs (f)(5) through (f)(8) must be satisfied only as of the first day of January and July in each year;
 - (2) The total number of component securities in the index may not increase or decrease by more than 10% from the number of component securities in the index at the time of its initial listing:

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless the continued listing of the class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

- (h) Initial Listing Criteria for MSCI EAFE Index (EAFE), MSCI Emerging Markets Index (EM), FTSE Emerging Index (FTSE Emerging), and FTSE Developed Europe Index (FTSE Developed) Index Options. The Exchange may trade EAFE, EM, FTSE Emerging, and FTSE Developed options if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 4.11;

- (2) Options on the index are designated as P.M.-settled index options;
- (3) The index is capitalization-weighted, price-weighted, modified capitalization-weighted or equal dollar-weighted;
- (4) The index consists of 500 or more component securities;
- (5) All of the component securities of the index will have a market capitalization of greater than \$100 million;
- (6) No single component security accounts for more than 15% of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than 50% of the weight of the index;
- (7) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than: (A) 25% of the weight of the EAFE Index, (B) 27.5% of the weight of the EM Index, (C) 32.5% of the weight of the FTSE Developed Index, and (D) 35% of the weight of the FTSE Emerging Index;
- (8) During the time options on the index are traded on the Exchange, the current index value is widely disseminated at least once every 15 seconds by one or more major market data vendors. However, the Exchange may continue to trade EAFE, FTSE Developed, and FTSE Emerging options after trading in all component securities has closed for the day and the index level is no longer widely disseminated at least once every 15 seconds by one or more major market data vendors, provided that EAFE, FTSE Developed, and FTSE Emerging futures contracts, respectively, are trading and prices for those contracts may be used as a proxy for the current index value;
- (9) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent System Capacity Advisor (ISCA) allocation and the number of new messages per second expected to be generated by options on such index; and
- (10) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.
- (i) Maintenance Listing Criteria for MSCI EAFE Index (EAFE), MSCI Emerging Markets Index (EM), FTSE Emerging Index (FTSE Emerging), and FTSE Developed Europe Index (FTSE Developed) Index Options. The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (h):
 - (1) The conditions set forth in subparagraphs (h)(1), (2), (3), (4), (8), (9), and (10) must continue to be satisfied. The conditions set forth in subparagraphs (h)(5) and (6) must be satisfied only as of the first day of January and July in each year. The conditions set forth in subparagraph (h)(7) must be satisfied as of the first day of the month following the

Reporting Authority's review of the weighting of the constituents in the applicable index but in no case less than a quarterly basis; and

(2) The total number of component securities in the index may not increase or decrease by more than 35% from the number of component securities in the index at the time of its initial listing, except for the EM Index, in which the total number of component securities in the EM Index may not increase or decrease by more than 10% over the last six-month period.

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

- (j) *Initial Listing Criteria for FTSE 100 Index (1/10 th) Options (FTSE 100 Options)*. The Exchange may trade FTSE 100 options if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 4.11;
 - (2) Options on the index are designated as A.M.-settled index options;
 - (3) The index is capitalization-weighted, price-weighted, modified capitalization-weighted or equal dollar-weighted;
 - (4) The index consists of 90 or more component securities;
 - (5) Each of the component securities of the index will have a market capitalization of greater than \$100 million;
 - (6) No single component security accounts for more than 15% of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than 50% of the weight of the index;
 - (7) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than 20% of the weight of the FTSE 100 Index;
 - (8) During the time options on the index are traded on the Exchange, the current index value is widely disseminated at least once every 15 seconds by one or more major market data vendors. However, the Exchange may continue to trade FTSE 100 options after trading in all component securities has closed for the day and the index level is no longer widely disseminated at least once every 15 seconds by one or more major market data vendors, provided that FTSE 100 futures contracts are trading and prices for those contracts may be used as a proxy for the current index value;
 - (9) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent

- System Capacity Advisor (ISCA) allocation and the number of new messages per second expected to be generated by options on such index; and
- (10) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.
- (k) Maintenance Listing Criteria for FTSE 100 Index (1/10 th) Options (FTSE 100 Options). The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (j):
 - (1) The conditions set forth in subparagraphs (j)(1), (2), (3), (4), (8), (9), and (10) must continue to be satisfied. The conditions set forth in subparagraphs (j)(5) and (6) must be satisfied only as of the first day of January and July in each year. The conditions set forth in subparagraph (j)(7) must be satisfied as of the first day of the month following the Reporting Authority's review of the weighting of the constituents in the applicable index but in no case less than a quarterly basis; and
 - (2) The total number of component securities in the index may not increase or decrease by more than 10% from the number of component securities in the index at the time of its initial listing.

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

- (1) *Initial Listing Criteria for FTSE China 50 Index (1/100th) Options (China 50 Options).* The Exchange may trade China 50 options if each of the following conditions is satisfied:
 - (1) The index is broad-based, as defined in Rule 4.11;
 - (2) Options on the index are designated as A.M.-settled index options;
 - (3) The index is capitalization-weighted, price-weighted, modified capitalization-weighted or equal dollar-weighted;
 - (4) The index consists of 45 or more component securities;
 - (5) Each of the component securities of the index will have a market capitalization of greater than \$100 million;
 - (6) No single component security accounts for more than 15% of the weight of the index, and the five highest weighted component securities in the index do not, in the aggregate, account for more than 50% of the weight of the index;
 - (7) Non-U.S. component securities (stocks or ADRs) that are not subject to comprehensive surveillance agreements do not, in the aggregate, represent more than 20% of the weight of the FTSE China 50 Index;

- (8) The Exchange may continue to trade China 50 options after trading in all component securities has closed for the day and the index level is no longer widely disseminated at least once every 15 seconds by one or more major market data vendors, provided that China 50 futures contracts are trading and prices for those contracts may be used as a proxy for the current index value;
- (9) The Exchange reasonably believes it has adequate system capacity to support the trading of options on the index, based on a calculation of the Exchange's current Independent System Capacity Advisor (ISCA) allocation and the number of new messages per second expected to be generated by options on such index; and
- (10) The Exchange has written surveillance procedures in place with respect to surveillance of trading of options on the index.
- (m) Maintenance Listing Criteria for FTSE China 50 Index (1/100th) Options (China 50 Options). The following maintenance listing standards shall apply to each class of index options originally listed pursuant to paragraph (1).
 - (1) The conditions set forth in subparagraphs (1)(1), (2), (3), (4), (8), (9), and (10) must continue to be satisfied. The conditions set forth in subparagraphs (1)(5) and (6) must be satisfied only as of the first day of January and July in each year. The conditions set forth in subparagraph (1)(7) must be satisfied as of the first day of the month following the Reporting Authority's review of the weighting of the constituents in the applicable index but in no case less than a quarterly basis; and
 - (2) The total number of component securities in the index may not increase or decrease by more than 10% from the number of component securities in the index at the time of its initial listing.

In the event a class of index options listed on the Exchange fails to satisfy the maintenance listing standards set forth herein, the Exchange shall not open for trading any additional series of options of that class unless the continued listing of that class of index options has been approved by the Commission under Section 19(b)(2) of the Exchange Act.

Rule 4.11. Index Option Definitions

A.M.-Settled Index Option

The term "A.M.-settled index option" means an index option contract for which the current index value at expiration shall be determined as provided in Rule 4.13(a)(4).

Broad-Based Index and Market Index

The terms "market index" and "broad-based index" mean an index designed to be representative of a stock market as a whole or of a range of companies in unrelated industries.

Butterfly Spread Interval

The term "butterfly spread interval" means a value specified by the Exchange which, when added to the exercise price and subtracted from the exercise price defines a range of index values over which the option has an exercise settlement amount greater than \$0. For example, a packaged butterfly spread with an exercise price of 800 and a butterfly spread interval of 30 will have an exercise settlement amount greater than \$0 for overlying index values between 830 (800 plus 30) and 770 (800 minus 30), and \$0 for all other index values.

Cap Interval

The term "cap interval" means a value specified by the Exchange which, when added to the exercise price for such series (in the case of a series of calls) or subtracted from the exercise price for such series (in the case of a series of puts), results in the cap price for such series.

Cap Price

The term "cap price" means the exercise price plus the cap interval for a call or the exercise price minus the cap interval for a put. The cap price is assigned to the capped index option (CAPS) when listed.

Current and Closing Index Value

The term "current index value" in respect of a particular index option contract means the level of the underlying index reported by the reporting authority for the index, or any multiple or fraction of such reported level specified by the Exchange. The current index value in respect of a reduced-valve LEAP is 1/10th of the current index value of the related index option. The "closing index value" shall be the last index value reported on a business day.

Delayed Start Option Series

The term "Delayed Start Option Series" means a series of a cash-settled index option classes that begins trading without an exercise price and subsequently has its exercise price fixed by the Exchange as provided in Rule 4.13(d).

Index Multiplier

The term "index multiplier" means the amount specified in the contract by which the current index value is to be multiplied to arrive at the value required to be delivered to the holder of a call or by the holder of a put upon valid exercise of the contract.

Individual Stock or ETF Based Volatility Indexes

The term "Individual Stock or ETF Based Volatility Indexes" means volatility indexes that provide an up-to-the-minute market estimate of the expected volatility of its corresponding underlying stock or ETF calculated by using real-time bid/ask quotes of Cboe Options listed options overlying that individual stock or ETF. The following Individual Stock or ETF Based Volatility Indexes have been approved for trading on the Exchange:

Symbol	<u>Underlying Volatility Index</u>
VXAPL	Cboe Equity VIX on Apple
VXAZN	Cboe Equity VIX on Amazon
<u>VXGS</u>	Cboe Equity VIX on Goldman Sachs
VXGOG	Cboe Equity VIX on Google
VXIBM	Cboe Equity VIX on IBM
GVZ	Cboe Gold ETF Volatility Index
OVX	Cboe Crude Oil ETF Volatility Index
VXEEM	Choe Emerging Markets ETF Volatility Index
VXFXI	Cboe China ETF Volatility Index
VXEWZ	Cboe Brazil ETF Volatility Index
VXGDX	Cboe Gold Miners ETF Volatility Index
VXSLV	Cboe Silver ETF Volatility Index
VXXLE	Cboe Energy Sector ETF Volatility Index

Micro Narrow-Based Index

<u>The term "Micro Narrow-Based Index" means an industry or narrow-based index that meets the</u> specific criteria provided under Rule 4.10(d).

Narrow-Based Index and Industry Index

The terms "narrow-based index" and "industry index" mean an index designed to be representative of a particular industry or a group of related industries and include indices having component securities that are all headquartered within a single country.

Packaged Butterfly Spread

The term "Packaged Butterfly Spread" means a single European-style, cash-settled index option overlying a broad-based index (such as the S&P 100 index or the S&P 500 index) that replicates the combination of four options of the same type on the same underlying interest with the same expiration, two having the same exercise price, the third having an exercise price above the first two by the butterfly spread interval, and the fourth having an exercise price below the exercise price of the first two by the same butterfly spread interval. The exercise price for the Packaged Butterfly Spread is the exercise price of the two options at the mid-point of the replicated butterfly spread. The exercise settlement amount of the Packaged Butterfly Spread is equal to the greater of (a) the butterfly spread interval minus the difference between the current index value and the strike price of the butterfly multiplied by the multiplier (e.g., \$100 in the case of Packaged Butterfly Spreads overlying the S&P 100 or the S&P 500) and (b) \$0.

Packaged Vertical Spread

The term "Packaged Vertical Spread" means a single European-style, cash-settled index option overlying a broad-based index (such as the S&P 100 index or the S&P 500 index) whose exercise settlement amount is equal to:

- (a) in the case of a call, the lessor of (1) the amount the current index level is above the exercise price, or (2) the vertical spread interval, multiplied by a multiplier of either \$100 or \$500; or
- (b) in the case of a put, the lesser of (1) the amount of the current index level is below the exercise price, or (2) the vertical spread interval, multiplied by a multiplier of either \$100 or \$500.

Quarterly Index Expiration and QIX

The terms "Quarterly Index Expiration" and "QIX" mean an index option contract that expires on the last business day of a calendar quarter.

Quarterly Index Expiration, Capped-Style Option and Q-CAPS

The terms "Quarterly Index Expiration, Capped-Style Option" and "Q-CAPS" mean a capped-style index option contract that expires on the first business day of the month following the end of a calendar quarter.

Quarterly Options Series

The term "Quarterly Options Series" means, for the purposes of this Chapter 4, Section B, a series in an options class that is approved for listing and trading on the Exchange in which the series is opened for trading on any business day and that expires at the close of business on the last business day of a calendar quarter.

Short Term Option Series

The term "Short Term Option Series" means, for the purposes of this Chapter 4, Section B, a series in an index option class that is approved for listing and trading on the Exchange in which

the series is opened for trading on any Friday that is a business day and that expires on the next Friday that is a business day. If a Friday is not a business day, the series may be opened (or shall expire) on the first business day immediately prior to that Friday.

Vertical Spread Interval

The term "vertical spread interval" means a value specified by the Exchange which, when added to the exercise price for call series or subtracted from the exercise price for put series defines the index level over which (for calls) or under which (for puts) the value of the contract will have its maximum value at expiration. For example, a packaged vertical call spread with an exercise price of 800 and a vertical spread interval of 20 will have an exercise settlement amount greater than \$0 for overlying index levels above 800 and have a maximum value for index levels of 820 (800 plus 20) and above.

Rule 4.12. Dissemination of Information

- (a) The Exchange shall disseminate or shall assure that the current index value is disseminated after the close of Regular Trading Hours and from time-to-time on days on which transactions in index options are made on the Exchange.
- (b) The Exchange shall maintain, in files available to the public, information identifying the stocks whose prices are the basis for calculation of the index and the method used to determine the current index value.
- (c) The reporting authorities designated by the Exchange in respect of each index underlying an index option contract traded on the Exchange are as follows:

<u>Index</u>	Reporting Authority
S&P 100	S&P Dow Jones Indices
S&P 500	S&P Dow Jones Indices
<u>Russell 2000</u>	Frank Russell Co.
Nasdaq 100	Nasdaq, Inc.
S&P SmallCap 600 Index	S&P Dow Jones Indices
Cboe S&P 500 AM/PM Basis	Cboe Global Indices, LLC
Dow Jones Industrial Average	S&P Dow Jones Indices
Russell 1000 Index	Frank Russell Co.

Cboe Volatility Index® (VIX®)

Cboe Global Indices, LLC

<u>Cboe Russell 2000 Volatility Index SM ("RVX SM")</u> <u>Cboe Global Indices, LLC</u>

S&P 500 Dividend Index S&P Dow Jones Indices

<u>Cboe Equity VIX on Apple</u> <u>Cboe Global Indices, LLC</u>

Cboe Equity VIX on Amazon Cboe Global Indices, LLC

<u>Cboe Equity VIX on Goldman Sachs</u> <u>Cboe Global Indices, LLC</u>

Cboe Equity VIX on Google Cboe Global Indices, LLC

Cboe Equity VIX on IBM Cboe Global Indices, LLC

Cboe Gold ETF Volatility Index

Cboe Global Indices, LLC

Cboe Crude Oil ETF Volatility Index

Cboe Global Indices, LLC

Cboe Emerging Markets ETF Volatility Index

Cboe Global Indices, LLC

Cboe China ETF Volatility Index

Cboe Global Indices, LLC

Cboe Brazil ETF Volatility Index

Cboe Global Indices, LLC

Cboe Gold Miners ETF Volatility Index

Cboe Global Indices, LLC

Cboe Energy Sector ETF Volatility Index

Cboe Global Indices, LLC

Cboe Silver ETF Volatility Index

Cboe Global Indices, LLC

<u>Cboe Short-Term Volatility Index</u> <u>Cboe Global Indices, LLC</u>

MSCI EAFE Index (EAFE) MSCI Inc.

MSCI Emerging Markets Index (EM)

MSCI Inc.

FTSE China 50 Index (1/100 th) FTSE International Limited

FTSE Emerging Index FTSE International Limited

FTSE Developed Europe Index	FTSE International Limited
FTSE 100 Index (1/10 th)	FTSE International Limited
S&P Financial Select Sector Index (IXM)	S&P Dow Jones Indices
S&P Energy Select Sector Index (IXE)	S&P Dow Jones Indices
S&P Technology Select Sector Index (IXT)	S&P Dow Jones Indices
S&P Health Care Select Sector Index (IXV)	S&P Dow Jones Indices
S&P Utilities Select Sector Index (IXU)	S&P Dow Jones Indices
S&P Consumer Staples Select Sector Index (IXR)	S&P Dow Jones Indices
S&P Industrials Select Sector Index (IXI)	S&P Dow Jones Indices
S&P Consumer Discretionary Select Sector Index (IXY)	S&P Dow Jones Indices
S&P Materials Select Sector Index (IXB)	S&P Dow Jones Indices
S&P Real Estate Select Sector Index (IXRE)	S&P Dow Jones Indices
S&P Communication Services Select Sector Index (IXC)	S&P Dow Jones Indices

Rule 4.13. Series of Index Options

(a) General.

- (1) Exercise Prices. The Exchange shall determine fixed-point intervals of exercise prices for call and put options.
- (2) Expiration Months and Weeks. Index option contracts may expire at three-month intervals, in consecutive months or in consecutive weeks (as specified by class below). The Exchange may:
- list up to six standard monthly expirations at any one time in a class, but will not list index options that expire more than 12 months out;
- list up to 12 standard monthly expirations at any one time for any class that the Exchange (as the Reporting Authority) uses to calculate a volatility index and for CBOE S&P 500 AM/PM Basis, EAFE, EM, FTSE Emerging, FTSE Developed, FTSE 100, China 50, and S&P Select Sector Index (SIXM, SIXE, SIXT, SIXV, SIXU, SIXR, SIXI, SIXY, SIXB, and SIXRE, and SIXC) options;

- list up to 12 consecutive weekly expirations in VXST options; and
- list up to six weekly expirations and up to 12 standard (monthly) expirations in VIX options. The six weekly expirations shall be for the nearest weekly expirations from the actual listing date and weekly expirations may not expire in the same week in which standard (monthly) VIX options expire. Standard (monthly) expirations in VIX options are not counted as part of the maximum six weekly expirations permitted for VIX options.
 - (A) Short Term Option Series Program. Notwithstanding the preceding restriction, after an index option class has been approved for listing and trading on the Exchange, the Exchange may open for trading on any Thursday or Friday that is a business day ("Short Term Option Opening Date") series of options on that class that expire at the close of business on each of the next five Fridays that are business days and are not Fridays in which monthly options series or Quarterly Options Series expire ("Short Term Option Expiration Dates"). The Exchange may have no more than a total of five Short Term Option Expiration Dates for each series. If the Exchange is not open for business on the respective Thursday or Friday, the Short Term Option Opening Date will be the first business day immediately prior to that respective Thursday or Friday. Similarly, if the Exchange is not open for business on the Friday of the following business week, the Short Term Option Expiration Date will be the first business day immediately prior to that Friday. Regarding Short Term Option Series:
 - (i) Classes. The Exchange may select up to fifty currently listed option classes on which Short Term Option Series may be opened on any Short Term Option Opening Date. In addition to the fifty-option class restriction, the Exchange also may list Short Term Option Series on any option classes that are selected by other securities exchanges that employ a similar program under their respective rules. For each index option class eligible for participation in the Short Term Option Series Program, the Exchange may open up to 30 Short Term Option Series on index options for each expiration date in that class. The Exchange may also open Short Term Option Series that are opened by other securities exchanges in option classes selected by such exchanges under their respective short term option rules.
 - (ii) Expiration. No Short Term Option Series on an index option class may expire in the same week during which any monthly option series on the same index class expire or, in the case of Quarterly Options Series or QIXs, on an expiration that coincides with an expiration of Quarterly Option Series or QIXs on the same index class.
 - (iii) *Initial Series*. The Exchange may open up to 20 initial series for each option class that participates in the Short Term Options Series Program.

The strike price of each Short Term Option Series will be fixed at a price per share, with approximately the same number of strike prices being opened above and below the calculated value of the underlying index at about the time that the Short Term Option Series are initially opened for trading on the Exchange (e.g., if seven series are initially opened, there will be at least three strike prices above and three strike prices below the value of the underlying security or calculated index value). Any strike prices listed by the Exchange shall be within 30% above or below the current value of the underlying index.

(iv) Additional Series. The Exchange may open up to 10 additional series for each open class that participates in the Short Term Option Series Program when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the current value of the underlying index moves substantially from the exercise price or prices of the series already opened. Any additional strike prices listed by the Exchange shall be within 30% above or below the current value of the underlying index. The Exchange may also open additional strike prices of Short Term Option Series that are more than 30% above or below the current value of the underlying index provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In the event that the underlying index has moved such that there are no series that are at least 10% above or below the current value of the underlying index and all existing series have open interest, the Exchange may list additional series, in excess of the thirty series per class limit set forth in Rule 4.13(a)(2)(A)(i), that are between 10% and 30% above or below the value of the underlying index. The opening of the new Short Term Option Series shall not affect the series of options of the same class previously opened. Notwithstanding any other provisions in this Rule 4.13, Short Term Option Series may be added up to, and including on, the last trading day for that options series.

(v) Strike Interval. The interval between strike prices on Short Term Option Series may be: (a) \$0.50 or greater where the strike price is less than \$75, and \$1 or greater where the strike price is between \$75 and \$150 for all index classes that participate in the Short Term Option Series Program; or (b) \$0.50 for index classes that trade in one dollar increments in non-Short Term Options and that participate in the Short Term Option Series Program. A non-Short Term Option that is on an index class that has been selected to participate in the Short Term Option Series Program is referred to as a "Related non-Short Term Option."

(vi) *Delisting*. In the event that the underlying index has moved such that there are no series that are at least 10% above or below the current value of the underlying index, the Exchange will delist any series with no open interest in both the call and the put series having a: (a) strike higher than the highest price with open interest in the put and/or call series for a given expiration week; and (b) strike lower than the lowest strike price with open interest in the put and/or the call series for a given expiration week, so as to list series that are at least 10% but not more than 30% above or below the current value of the underlying index.

Related non-Short Term Option series shall be opened during the month prior to expiration in the same manner as permitted in Rule 4.13(a)(2)(A) and in the same strike price intervals that are permitted in this Rule 4.13(a)(2)(A)(v).

- (B) Quarterly Options Series Program. Notwithstanding the preceding restriction, the Exchange may list and trade options series that expire at the close of business on the last business day of a calendar quarter ("Quarterly Options Series").
 - (i) Classes. The Exchange may list Quarterly Options Series for up to five currently listed options classes that are either index options or options on ETFs. In addition, the Exchange may also list Quarterly Options Series on any options classes that are selected by other securities exchanges that employ a similar program under their respective rules.
 - (ii) Expiration. The Exchange may list series that expire at the end of the next consecutive four calendar quarters, as well as the fourth quarter of the next calendar year. For example, if the Exchange is trading Quarterly Options Series in the month of May 2009, it may list series that expire at the end of the second, third, and fourth quarters of 2009, as well as the first and fourth quarters of 2010. Following the second quarter 2009 expiration, the Exchange could add series that expire at the end of the second quarter of 2010.
 - (iii) Settlement. Quarterly Options Series shall be P.M.-settled.
 - (iv) *Initial Series*. The strike price of each Quarterly Options Series will be fixed at a price per share, with at least two, but no more than five, strike prices above and at least two, but no more than five, strike prices below the value of the underlying index at about the time that a Quarterly Options Series is opened for trading on the Exchange. The Exchange shall list strike prices for Quarterly Options Series that are reasonably related to the current index value of the underlying index to which such series relates at about the time such series of options is first opened for trading on the Exchange. The term "reasonably related to the current index value of the underlying index" means that the exercise price is within 30% of the current index value.

(v) Additional Series. The Exchange may open for trading additional Quarterly Options Series of the same class when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the market price of the underlying security moves substantially from the initial exercise price or prices. The Exchange may also open for trading additional Quarterly Options Series that are more than thirty percent (30%) of the current index value, provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate, or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision.

The Exchange may open additional strike prices of a Quarterly Options
Series that are above the value of the underlying index provided that the
total number of strike prices above the value of the underlying index is no
greater than five. The Exchange may open additional strike prices of a
Quarterly Options Series that are below the value of the underlying index
provided that the total number of strike prices below the value of the
underlying index is no greater than five. The opening of any new
Quarterly Options Series shall not affect the series of options of the same
class previously opened.

(vi) Strike Interval. The interval between strike prices on Quarterly Options Series shall be the same as the strike prices for series in that same index option class that expire in accordance with the normal monthly expiration cycle.

(3) "European-Style Exercise." The following European-style index options, some of which are A.M.-settled as provided in subparagraph (a)(4), are approved for trading on the Exchange:

S&P 500 Stock Index

Russell 2000 Index

S&P 100 Stock Index

Nasdaq 100

Mini-SPX Index

Cboe Equity VIX on Apple (VXAPL)

Cboe Equity VIX on Amazon (VXAZN)

Cboe Equity VIX on Goldman Sachs (VXGS)

Choe Equity VIX on Google (VXGOG)

Cboe Gold ETF Volatility Index (GVZ)

Cboe Equity VIX on IBM (VXIBM)

Cboe Crude Oil ETF Volatility Index (OVX)

Cboe Emerging Markets ETF Volatility Index (VXEEM)

Cboe China ETF Volatility Index (VXFXI)

Cboe Brazil ETF Volatility Index (VXEWZ)

Cboe Gold Miners ETF Volatility Index (VXGDX)

Cboe Energy Sector ETF Volatility Index (VXXLE)

Cboe Silver ETF Volatility Index (VXSLV)

S&P SmallCap 600 Index

S&P 500 Dividend Index

Packaged Butterfly Spreads

Packaged Vertical Spreads

Dow Jones Industrial Average

Russell 1000 Index

Choe Volatility Index® (VIX®)

Cboe S&P 500 AM/PM Basis (P.M.-settled)

Cboe Short-Term Volatility Index (VXST)

MSCI EAFE Index (P.M.-settled)

MSCI Emerging Markets Index (P.M.-settled)

FTSE 100 Index (1/10 th)

FTSE China 50 Index (1/100 th)

FTSE Emerging Index

FTSE Developed Europe Index

S&P Financial Select Sector Index (SIXM)

S&P Energy Select Sector Index (SIXE)

S&P Technology Select Sector Index (SIXT)

S&P Health Care Select Sector Index (SIXV)

S&P Utilities Select Sector Index (SIXU)

S&P Consumer Staples Select Sector Index (SIXR)

S&P Industrials Select Sector Index (SIXI)

S&P Consumer Discretionary Select Sector Index (SIXY)

S&P Materials Select Sector Index (SIXB)

S&P Real Estate Select Sector Index (SIXRE)

<u>S&P Communication Services Select Sector Index (SIXC)</u>

(4) A.M.-Settled Index Options. The last day of trading for non-Volatility A.M.-settled index options shall be the business day preceding the last day of trading in the underlying securities prior to expiration. The last day of trading for Volatility Index, Individual Stock or ETF Based Volatility Index options that measure a 30-day volatility period is governed by subparagraph (5) below and the last day of trading for VXST options is governed by subparagraph (6) below. The current index value at the expiration of an A.M.-settled index option shall be determined, for all purposes under these Rules and the Rules of the Clearing Corporation, on the last day of trading in the underlying securities prior to expiration, by reference to the reported level of such index as derived from the opening prices (intra-day auction prices in the case of FTSE 100 options and closing prices in the case of China 50 options) of the underlying securities on such day, as determined by the market for such security selected by the Reporting Authority pursuant to Interpretation and Policy .09 to Rule 4.13, except that in the event that the primary market for an underlying security does not open for trading, halts trading prematurely, or otherwise experiences a disruption of normal trading on that day, or in the event that the primary market for an underlying security is open for trading on that day, but that particular security does not open for trading, halts trading prematurely, or otherwise experiences a disruption of normal trading on that day, the price of that security shall be determined, for the purposes of calculating the current index value at expiration, as set forth in Rule 5.20(e). The current index level at the expiration of an A.M.-settled S&P 500 Dividend Index option shall be a special quotation of the S&P 500 Dividend Index as determined by the Reporting Authority pursuant to Interpretation and Policy .09 to Rule 4.13, except that in the event that the Reporting Authority is unable to calculate a special quotation of the S&P 500 Dividend Index, the special quotation shall be determined, for the purposes of calculating the current index value at expiration, as set forth in Rule 5.20(e).

The following A.M.-settled index options are approved for trading on the Exchange:

S&P 500 Stock Index

Russell 2000 Index

Mini-SPX Index

Cboe Equity VIX on Apple (VXAPL)

Cboe Equity VIX on Amazon (VXAZN)

Cboe Equity VIX on Goldman Sachs (VXGS)

Choe Equity VIX on Google (VXGOG)

Cboe Gold ETF Volatility Index (GVZ)

Cboe Equity VIX on IBM (VXIBM)

Cboe Emerging Markets ETF Volatility Index (VXEEM)

Cboe China ETF Volatility Index (VXFXI)

Cboe Brazil ETF Volatility Index (VXEWZ)

Cboe Gold Miners ETF Volatility Index (VXGDX)

Cboe Energy Sector ETF Volatility Index (VXXLE)

Cboe Silver ETF Volatility Index (VXSLV)

S&P SmallCap 600 Index

Dow Jones Industrial Average

Russell 1000 Index

Cboe Volatility Index® (VIX®)

Cboe Crude Oil ETF Volatility Index (OVX)

Cboe Short-Term Volatility Index (VXST)

FTSE 100 Index (1/10 th)

FTSE China 50 Index (1/100 th)

S&P Financial Select Sector Index (SIXM)

S&P Energy Select Sector Index (SIXE)

S&P Technology Select Sector Index (SIXT)

S&P Health Care Select Sector Index (SIXV)

S&P Utilities Select Sector Index (SIXU)

S&P Consumer Staples Select Sector Index (SIXR)

S&P Industrials Select Sector Index (SIXI)

S&P Consumer Discretionary Select Sector Index (SIXY)

S&P Materials Select Sector Index (SIXB)

S&P Real Estate Select Sector Index (SIXRE)

S&P Communication Services Select Sector Index (SIXC)

(5) Method of Determining Day that Exercise Settlement Value will be Calculated, Special Opening Quotation and Expiration Date and Last Trading Day for Options on Volatility Indexes that Measure a 30-Day Volatility Period ("Volatility Index options").

(A) Method of Determining Day that Exercise Settlement Value will be Calculated.

(i) Volatility Index Options (Other than VIX Options, e.g., RVX, VXD, VXN, Individual Stock or ETF Based Volatility Index Options). The exercise settlement value of a standard (monthly) Volatility Index option for all purposes under these Rules and the Rules of the Clearing Corporation, shall be calculated on the Wednesday that is 30 days prior to the third Friday of the calendar month immediately following the month in which the standard (monthly) Volatility Index option expires. If that Wednesday or the third Friday of the month subsequent to the expiration of the standard (monthly) Volatility Index option is an Exchange holiday, the exercise settlement value shall be calculated on the business day that is 30 days prior to the Exchange business day immediately preceding that Friday.

(ii) Choe Volatility Index ("VIX") Options. The exercise settlement value of a VIX option for all purposes under these Rules and the Rules of the Clearing Corporation, shall be calculated on the specific date (usually a Wednesday) identified in the option symbol for the series. If that Wednesday or the Friday that is 30 days following that Wednesday is an Exchange holiday, the exercise settlement value shall be calculated on the business day immediately preceding that Wednesday.

(B) Special Opening Quotation. The exercise settlement value of a Volatility Index option for such purposes shall be calculated by the Exchange as a Special Opening Quotation (SOQ) of the applicable Volatility Index using the sequence of opening prices of the options that comprise the Volatility Index. The opening price for any series in which there is no trade shall be the average of that option's bid price and ask price as determined at the opening of trading.

The "time to expiration" used to calculate the SOQ shall account for the actual number of days and minutes until expiration for the constituent option series. For example, if the Exchange announces that the opening of trading in the constituent option series is delayed, the amount of time until expiration for the constituent option series used to calculate the exercise settlement value would be reduced to

reflect the actual opening time of the constituent option series. Another example would be when the Exchange is closed on a Wednesday due to an Exchange holiday, the amount of time until expiration used to calculate the exercise settlement value would be increased to reflect the extra calendar day between the day that the exercise settlement value is calculated and the day on which the constituent option series expire.

(C) Expiration Date and Last Day of Trading. The expiration date of a Volatility Index option shall be the same day that the exercise settlement value of the Volatility Index option is calculated. The last trading day for a Volatility Index option shall be the business day immediately preceding the expiration date of the Volatility Index option. When the last trading day is moved because of an Exchange holiday, the last trading day for an expiring option contract will be the day immediately preceding the last regularly scheduled trading day.

(6) Method of Determining Day that Exercise Settlement Value will be Calculated, Special Opening Quotation and Expiration Date and Last Trading Day for Cboe Options Short-Term Volatility Index (VXST) Options.

(i) Method of Determining Day that Exercise Settlement Value will be Calculated. The exercise settlement value of a VXST option for all purposes under these Rules and the Rules of the Clearing Corporation, shall be calculated on the specific date (usually a Wednesday) identified in the option symbol for the series. If that Wednesday or the Friday in the business week following that Wednesday (i.e., nine days away) is an Exchange holiday, the exercise settlement value would be calculated on the business day immediately preceding the Wednesday.

(ii) Special Opening Quotation. The exercise settlement value of a VXST option for all purposes under these Rules and the Rules of the Clearing Corporation shall be calculated by the Exchange as a Special Opening Quotation (SOQ) of VXST using the sequence of opening prices of the options that comprise the VXST index. The opening price for any series in which there is no trade shall be the average of that option's bid price and ask price as determined at the opening of trading.

The "time to expiration" used to calculate the SOQ shall account for the actual number of days and minutes until expiration for the constituent option series. For example, if the Exchange announces that the opening of trading in the constituent option series is delayed, the amount of time until expiration for the constituent option series used to calculate the exercise settlement value would be reduced to reflect the actual opening time of the constituent option series.

Another example would be when the Exchange is closed on a Wednesday due to an Exchange holiday, the amount of time until expiration used to calculate the exercise settlement value would be increased to reflect the extra calendar day

between the day that the exercise settlement value is calculated and the day on which the constituent option series expire.

(iii) Expiration Date and Last Day of Trading. The expiration date of a VXST option shall be the same day that the exercise settlement value of the VXST option is calculated. The last trading day for a VXST option shall be the business day immediately preceding the expiration date of the VXST option. When the last trading day is moved because of an Exchange holiday, the last trading day for an expiring VXST option contract will be the day immediately preceding the last regularly scheduled trading day.

(b) Long-Term Index Option Series ("LEAPS").

- (1) General. Notwithstanding the provisions of subaragraph (a)(2) above, the Exchange may list long-term index option series that expire from 12 to 180 months from the date of issuance.
 - (A) Index LEAPS may be based on either the full or reduced value of the underlying index.
 - (B) There may be up to 10 expiration months, none further out than one-hundred eighty (180) months.

(2) Reduced-Value LEAPS.

(A) Reduced-value LEAPS on the following stock indices are approved for trading on the Exchange:

S&P 100 Stock Index

S&P 500 Stock Index

Russell 2000 Index

Nasdaq 100

S&P SmallCap 600 Index

Russell 1000 Index

FTSE 100 Index

FTSE China 50 Index

- (B) Expiration Months. Reduced-value LEAPS may expire at six-month intervals. When a new expiration month is listed, series may be near or bracketing the current index value. Additional series may be added when the value of the underlying index increases or decreases by 10 to 15%.
- (c) *Quarterly Index Expirations or QIXs*. The Exchange may open for trading QIXs on the S&P 100, S&P 500, Mini-SPX Index, and Russell 2000 indices. QIXs shall be subject to the

provisions of paragraph (a) of this Rule except that, notwithstanding the provisions of paragraph (a)(2) of this Rule, there may be up to eight near- term quarterly expirations open for trading and, notwithstanding the provisions of paragraph (a)(4) of this Rule, QIXs on the S&P 500, Mini-SPX Index, and Russell 2000 stock indices shall be P.M.-settled index options. The index multiplier for QIXs may be 100 or 500.

(d) Delayed Start Option Series.

- (1) The Exchange may open for trading Delayed Start Option Series on any security index that is approved for options trading on the Exchange. The exercise price for a Delayed Start Option Series shall be fixed in accordance with subparagraph (d)(2). Until the strike setting date, a Delayed Start Option Series shall be traded with European-style exercise methodology. After the strike setting date, a Delayed Start Option Series shall have the same exercise methodology (i.e., American-style or European-style) as other options contracts in the same index class.
- (2) A Delayed Start Option Series' exercise price will be determined in relation to the closing price of the underlying index on the date on which the exercise price is fixed ("strike setting date"). The strike setting date for a particular Delayed Start Option Series shall be fixed by the Exchange prior to opening the Delayed Start Option Series ("opening date") and shall not be sooner than one month nor later than twelve months after the opening date. The expiration date shall also be fixed by the Exchange prior to the opening date and shall not exceed the period set forth in Rule 4.5(f)(1).
 - (A) On the strike setting date, each Delayed Start Option Series shall be assigned a strike price that either is at-the-money, in-the-money by a specified amount, or out-of-the-money by a specified amount. The terms of each Delayed Start Option Series, including: (i) the determination of whether a Delayed Start Option Series shall be assigned an at-the money, in-the-money, or out-of-the-money strike price; and (ii) the specified amount by which a strike price shall be established in or out-of-the-money (if applicable), shall be fixed by the Exchange on the opening date.
 - (B) The exercise price assigned to the Delayed Start Option Series will be rounded to the lesser of the nearest 1.00 (greater than or equal to 0.50 rounds up) or such smaller increment as may be fixed by the Exchange on the opening date, provided that such increment shall not be smaller than 0.01.
- (3) Except as may otherwise be provided in this rule or as the context may otherwise require, Delayed Start Option Series shall be subject to all of the Rules in the same manner as standard cash-settled index option series based on the same underlying index.
- (4) The Exchange's strike price interval rules shall not apply to Delayed Start Option Series.
- (5) DSOs in an index option class will be treated the same as any other options on the same index for the purpose of determining customer margin under Rule 10.3, except that

spread margin will not be permitted between DSO and non-DSO options for the time period between the initial listing of a DSO and its strike setting date.

(6) For the Delayed Start Option Series of a given index option class, the Exchange shall determine the appropriate market model, including the eligible categories of Market-Maker participants, allocation algorithms, and other trading parameters. The market model for the Delayed Start Option Series of a given index option class may differ from the market model for the non-Delayed Start Option Series of the same class and may differ for the periods before and after the strike setting date.

(e) Nonstandard Expirations Pilot Program.

(1) Weekly Expirations. The Exchange may open for trading Weekly Expirations on any broad-based index eligible for standard options trading to expire on any Monday, Wednesday, or Friday (other than the third Friday-of-the-month or days that coincide with an EOM expiration). Weekly Expirations shall be subject to all provisions of this Rule and treated the same as options on the same underlying index that expire on the third Friday of the expiration month; provided, however, that Weekly Expirations shall be P.M.-settled and new series in Weekly Expirations may be added up to and including on the expiration date for an expiring Weekly Expiration.

The maximum number of expirations that may be listed for each Weekly Expiration (i.e., a Monday expiration, Wednesday expiration, or Friday expiration, as applicable) in a given class is the same as the maximum number of expirations permitted in Rule 4.13(a)(2) for standard options on the same broad-based index. Weekly Expirations need not be for consecutive Monday, Wednesday, or Friday expirations as applicable; however, the expiration date of a non-consecutive expiration may not be beyond what would be considered the last expiration date if the maximum number of expirations were listed consecutively. Weekly Expirations that are first listed in a given class may expire up to four weeks from the actual listing date. If the last trading day of a month is a Monday, Wednesday, or Friday and the Exchange lists EOMs and Weekly Expirations as applicable in a given class, the Exchange will list an EOM instead of a Weekly Expiration in the given class. Other expirations in the same class are not counted as part of the maximum number of Weekly Expirations for a broad-based index class. If the Exchange is not open for business on a respective Monday, the normally Monday expiring Weekly Expirations will expire on the following business day. If the Exchange is not open for business on a respective Wednesday or Friday, the normally Wednesday or Friday expiring Weekly Expirations will expire on the previous business day.

(2) End of Month ("EOM") Expirations. The Exchange may open for trading EOMs on any broad-based index eligible for standard options trading to expire on last trading day of the month. EOMs shall be subject to all provisions of this Rule and treated the same as options on the same underlying index that expire on the third Friday of the expiration month; provided, however, that EOMs shall be P.M.-settled and new series in EOMs may be added up to and including on the expiration date for an expiring EOM.

The maximum number of expirations that may be listed for EOMs in a given class is the same as the maximum number of expirations permitted in Rule 4.13(a)(2) for standard options on the same broad-based index. EOM expirations need not be for consecutive end of month expirations; however, the expiration date of a non-consecutive expiration may not be beyond what would be considered the last expiration date if the maximum number of expirations were listed consecutively. EOMs that are first listed in a given class may expire up to four weeks from the actual listing date. Other expirations in the same class are not counted as part of the maximum numbers of EOM expirations for a broad-based index class.

- (3) *Duration of Nonstandard Expirations Pilot Program.* The Nonstandard Expirations Pilot Program shall be through November 4, 2019.
- (4) Weekly Expirations and EOM Trading Hours on the Last Trading Day. On the last trading day, transactions in expiring Weekly Expirations and EOMs may be effected on the Exchange between the hours of 9:30 a.m. and 4:00 p.m.
- (f) Listing SPX and VIX on Group Basis. The Exchange may determine to list SPX or VIX on a group basis.

Interpretations and Policies

- .01 The procedures for adding and deleting strike prices for index options are provided in Rule 54.5 and Interpretations and Policies related thereto, as otherwise generally provided by Rule 4.13, and include the following:
- (a) The interval between strike prices will be no less than \$5.00; provided, that in the case of the following classes of index options, the interval between strike prices will be no less than \$2.50:

Reduced-value LEAPs

Russell 2000 Index, if the strike price is less than \$200.00

Reduced-value options on the S&P 500 Stock Index

S&P SmallCap 600 Index, if the strike price is less than \$200.00

S&P 500 Dividend Index, if the strike price exceeds 200 scaled index points

Reduced-value Nasdaq 100 Index options

Russell 1000 Index, if the strike price is less than \$200.00

Cboe Volatility Index® (VIX®)

European-Style Exercise S&P 100 Index Options (XEO) (1/5 th value), if the strike price is less than \$200.00

Russell 2000 Index (1/10 th value), if the strike price is less than \$200.00

Russell 2000 Index (1/5 th value), if the strike price is less than \$200.00

Cboe Equity VIX on Apple (VXAPL)

Cboe Equity VIX on Amazon (VXAZN)

Cboe Equity VIX on Goldman Sachs (VXGS)

Cboe Equity VIX on Google (VXGOG)

Cboe Equity VIX on IBM (VXIBM)

Cboe Gold ETF Volatility Index (GVZ)

Cboe Crude Oil ETF Volatility Index (OVX)

Cboe Emerging Markets ETF Volatility Index (VXEEM)

Cboe China ETF Volatility Index (VXFXI)

Cboe Brazil ETF Volatility Index (VXEWZ)

Cboe Gold Miners ETF Volatility Index (VXGDX)

Cboe Energy Sector ETF Volatility Index (VXXLE)

MSCI EAFE Index, if the strike price is less than \$200.00

MSCI Emerging Markets Index, if the strike price is less than \$200.00

FTSE 100 Index (1/10 th), if the strike price is less than \$200.00

FTSE China 50 Index (1/100 th), if the strike price is less than \$200.00

FTSE Emerging Index, if the strike price is less than \$200.00

FTSE Developed Europe Index, if the strike price is less than \$200.00

- (b) Notwithstanding the above paragraph, the interval between strike prices may be no less than \$0.50 for options based on one-one hundredth of the value of the DJIA, including for series listed under either the Short Term Options Series Program in Rule 4.13(a)(2)(A) or the Nonstandard Expirations Pilot Program in Rule 4.13(e).
- (c) New series of index option contracts may be added up to the fifth business day prior to expiration. Notwithstanding the preceding restriction, the Exchange may list new VIX and VXST option series up to and including on the last day of trading for an expiring VIX or VXST option contract.
- (d) When new series of index options with a new expiration date are opened for trading, or when additional series of index options in an existing expiration date are opened for trading as the current value of the underlying index to which such series relate moves substantially from the exercise prices of series already opened, the exercise prices of such new or additional series shall be reasonably related to the current value of the underlying index at the time such series are first opened for trading. In the case of all classes of index options, the term "reasonably related to the

- current value of the underlying index" shall have the meaning set forth in Interpretation and Policy .04 under Rule 4.13.
- (e) The interval between strike prices for Cboe S&P 500 AM/PM Basis options will be \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is greater than \$200.
- (f) Notwithstanding paragraph (a), the interval between strike prices of series of S&P 500 Dividend Index options will be 1 point (\$1.00) or greater if the strike price is equal to or less than 200 scaled index points, subject to following conditions:
 - (1) *Initial Series*. The Exchange will list in-, at- and out-of-the-money strike prices, and may open for trading up to five series above and five series below the calculated forward value of the S&P 500 Dividend Index.
 - (2) Additional Series. In response to customer demand or as the calculated forward value of the S&P 500 Dividend Index moves from the initial exercise prices of option and LEAPs series that have been opened for trading, the Exchange may open for trading up to an additional twenty series.
 - (3) The Exchange may not open for trading series with 1 point (\$1.00) intervals within \$0.50 of an existing 2.5 point (\$2.50) strike price with the same expiration month.
 - (4) The Exchange shall not list LEAPS on S&P 500 Dividend Index options at intervals less than \$1.
- (g) The interval between strike prices for Cboe Options Short-Term Volatility Index (VXST) options will be \$0.50 or greater where the strike price is less than \$75, \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is more than \$200.
- (h) In addition to the strike price intervals permitted under Interpretation and Policy .01(a) to Rule 4.13, the Exchange may also list series at \$1 strike price intervals for Mini-Nasdaq-100 Index ("MNX" or "Mini-NDX") options, subject to following conditions:
 - (1) Initial Series. The Exchange may list series at \$1 strike price intervals for Mini-NDX options, and will list at least two \$1 strike prices above and two \$1 strike prices below the current value of the MNX at about the time a series is opened for trading on the Exchange. The Exchange shall list \$1 strike prices for Mini-NDX options that are within 5 points from the closing value of the MNX on the preceding day.
 - (2) Additional Series. Additional series of the same class of Mini-NDX options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the underlying MNX moves substantially from the initial exercise price or prices. To the extent that any additional \$1 strike prices are listed by the Exchange, such additional \$1 strike prices shall be within 30% above or below the closing value of the MNX. The Exchange may also open additional \$1 strike prices that are more than 30% above or below the current MNX value

provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In addition to the initial listed series, the Exchange may list up to 60 additional series at \$1 strike price intervals per expiration month for each series in Mini-NDX options.

(3) The Exchange shall not list LEAPS on Mini-NDX options at intervals less than \$2.50. The Exchange may not list strike prices with \$1 intervals within \$0.50 of an existing \$2.50 strike price in the same series.

<u>(4)</u>

- (A) Delisting Policy. With respect to Mini-NDX options added pursuant to the above paragraphs, the Exchange will, on a monthly basis, review series that are outside a range of five strikes above and five strikes below the current value of the MNX, and delist series with no open interest in both the put and the call series having a:
 - (i) strike higher than the highest strike price with open interest in the put and/or call series for a given expiration month; and
 - (ii) strike lower than the lowest strike price with open interest in the put and/or call series for a given expiration month.
- (B) Notwithstanding the above referenced delisting policy, customer requests to add strikes and/or maintain strikes in Mini-NDX option series eligible for delisting shall be granted.
- (C) In connection with the above referenced delisting policy, if the Exchange identifies series for delisting, the Exchange shall notify other options exchanges with similar delisting policies regarding eligible series for delisting, and shall work with such other exchanges to develop a uniform list of series to be delisted, so as to ensure uniform series delisting of multiply listed Mini-NDX options.
- (i) Notwithstanding Interpretation and Policy .01(a) to Rule 4.13, the interval between strike prices of series of Mini-Russell 2000 Index ("RMN" or "Mini-RUT") options will be \$1 or greater, subject to following conditions:
 - (1) *Initial Series*. The Exchange may list series at \$1 or greater strike price intervals for Mini-RUT options, if the strike price is less than \$200, and will list at least two strike prices above and two strike prices below the current value of the RMN at about the time a series is opened for trading on the Exchange. The Exchange shall list strike prices for Mini-RUT options that are within 5 points from the closing value of the RMN on the preceding day.

- (2) Additional Series. Additional series of the same class of Mini-RUT options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market, to meet customer demand or when the underlying RMN moves substantially from the initial exercise price or prices. To the extent that any additional strike prices are listed by the Exchange, such additional strike prices shall be within 30% above or below the closing value of the RMN. The Exchange may also open additional strike prices that are more than 30% above or below the current RMN value provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate or individual customers or their brokers. Market-Makers trading for their own account shall not be considered when determining customer interest under this provision. In addition to the initial listed series, the Exchange may list up to 60 additional series per expiration month for each series in Mini-RUT options. In all cases, however, \$1 strike prices intervals may be listed on Mini-RUT options only where the strike price is less than \$200.
- (3) The Exchange shall not list LEAPS on Mini-RUT options at intervals less than \$2.50.

 (4)
 - (A) Delisting Policy. With respect to Mini-RUT options added pursuant to the above paragraphs, the Exchange will, on a monthly basis, review series that are outside a range of five strikes above and five strikes below the current value of the RMN, and delist series with no open interest in both the put and the call series having a:
 - (i) strike higher than the highest strike price with open interest in the put and/or call series for a given expiration month; and
 - (ii) strike lower than the lowest strike price with open interest in the put and/or call series for a given expiration month.
 - (B) Notwithstanding the above referenced delisting policy, customer requests to add strikes and/or maintain strikes in Mini-RUT option series eligible for delisting shall be granted.
 - (C) In connection with the above referenced delisting policy, if the Exchange identifies series for delisting, the Exchange shall notify other options exchanges with similar delisting policies regarding eligible series for delisting, and shall work with such other exchanges to develop a uniform list of series to be delisted, so as to ensure uniform series delisting of multiply listed Mini-RUT options.

(<u>i</u>)

(1) Notwithstanding paragraph (a), the interval between strike prices for Volatility Index options (as defined in Rule 4.13(a)(5)) will be \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is greater than \$200. The Exchange shall not list LEAPS on Volatility Index options at strike price intervals less than \$1.

- (2) Notwithstanding paragraphs (a) and (j)(1), the interval between strike prices for Cboe Volatility Index (VIX) options will be \$0.50 or greater where the strike price is less than \$75, \$1 or greater where the strike price is \$200 or less and \$5 or greater where the strike price is more than \$200.
- (k) Notwithstanding any other provision regarding strike prices in this rule, Related non-Short Term Option series shall be opened during the week prior to the week that such Related non-Short Term Option series expire in the same manner as permitted in Rule 4.13(a)(2)(A) and in the same strike price intervals that are permitted in Rule 4.13(a)(2)(A)(v).
- .02 The reported level of the underlying index that is calculated by the reporting authority on the last day of trading in the underlying securities prior to expiration for purposes of determining the current index value at the expiration of an A.M.-settled index option may differ from the level of the index that is separately calculated and reported by the reporting authority and which reflects trading activity subsequent to the opening of trading in any of the underlying securities.
- .03 For capped-style index options, including index Q-CAPS, the procedures for adding exercise prices and expiration months shall be as follows:
- (a) Unless modified by the Exchange, the cap interval shall be:
 - (1) \$30.00 for CAPS on the S&P 100 Stock Index ("S&P 100") and the S&P 500 Stock Index ("S&P 500");
 - (2) \$20.00 for CAPS on the Russell 2000 Index; and
 - (3) \$30.00 for Q-CAPS on the S&P 100 and the S&P 500.
- (b) Initially, one at-the-money call and put will be listed with an expiration of up to four months into the future for S&P 100 CAPS, up to one year in the future for the S&P 500 and Russell 2000 CAPS, and up to eight consecutive quarters in the future for S&P 100 and S&P 500 Q- CAPS. Additional at-the-money series may be listed every two months with expirations up to four months in the future for S&P 100 CAPS, up to one year in the future for S&P 500 and Russell 2000 CAPS, and every three months with expirations of up to eight consecutive quarters in the future for S&P 100 and S&P 500 Q-CAPS.
- (c) Series may be added to expiration months with three or more months remaining to their expiration, if there has been a 20-point or more move in the index value for S&P 100 or S&P 500, or a 10-point or more move in the index value for the Russell 2000 Index.
- .04 Notwithstanding the provisions of Interpretation .01, the Exchange may open for trading additional series of the same class of index options as the current index value of the underlying index moves substantially from the exercise price of those index options that already have been opened for trading on the Exchange. The exercise price of each series of index options opened for trading on the Exchange shall be reasonably related to the current index value of the underlying index to which such series relates at or about the time such series of options is first opened for trading on the Exchange. The term "reasonably related to the current index value of

the underlying index" means that the exercise price is within 30% of the current index value. The Exchange may also open for trading additional series of index options that are more than 30% away from the current index value, provided that demonstrated customer interest exists for such series, as expressed by institutional, corporate, or individual customers or their brokers. Market-makers trading for their own account shall not be considered when determining customer interest under this provision.

- .05 The Rules of the Clearing Corporation specify that, unless the Rules of the Exchange provide otherwise, the current index value used to settle the exercise of an index option contract shall be the closing index for the day on which the index option contract is exercised in accordance with the Rules of the Clearing Corporation or, if such day is not a business day, for the most recent business day.
- .06 The current index value of reduced-value options on the S&P 500 Stock Index ("Mini-SPX options") shall be one-tenth (1/10th) the value of the underlying index reported by the reporting authority.
- .07 Packaged Vertical Spreads will be listed with vertical spread intervals ranging from 10 to 50 points.
- .08 For Packaged Butterfly Spreads, the procedures for adding strike prices shall be as follows:
- (a) Initially, the Exchange expects to list an at-the-money strike and other strikes above and below the at-the-money at strikes reasonable related to the current index value;
- (b) New series may be added to accommodate moves in the index;
- (c) The Exchange will have the authority to determine which series will be listed.
- .09 With respect to any securities index on which options are traded on the Exchange, the source of the prices of component securities used to calculate the current index level at expiration is determined by the Reporting Authority for that index.
- .10 Notwithstanding Interpretations and Policies .01(a), .01(d) and .04 to Rule 4.13, the exercise prices for new and additional series of Mini-SPX options shall be listed subject to the following:
- (a) If the current value of the Mini-SPX is less than or equal to 20, the Exchange shall not list series with an exercise price of more than 100% above or below the current value of the Mini-SPX;
- (b) If the current value of the Mini-SPX is greater than 20, the Exchange shall not list series with an exercise price of more than 50% above or below the current value of the Mini-SPX; and
- (c) The lowest strike price interval that may be listed for standard Mini-SPX options is \$1, including for LEAPS, and the lowest strike price interval that may be listed for series of Mini-SPX listed under either the Short Term Option Series Program in Rule 4.13(a)(2)(A) or the Nonstandard Expirations Pilot Program in Rule 4.13(e) is \$0.50.

- .11 \$0.50 and \$1 Strike Price Intervals for Index Options Used to Calculate Volatility Indexes. Notwithstanding Interpretation and Policy .01(a) to Rule 4.13, the Exchange may open for trading series at \$0.50 or greater strike price intervals where the strike price is less than \$75 and \$1.00 or greater strike price intervals where the strike price is between \$75 and \$150 for index options that are used to calculate a volatility index.
- .12 Notwithstanding the requirements set forth in this Rule 4.13 and the Interpretations and Policies thereunder, the Exchange may list additional expiration months on options classes opened for trading on the Exchange if such expiration months are opened for trading on at least one other registered national securities exchange.
- .13 In addition to A.M.-settled S&P 500 Stock Index options approved for trading on the Exchange pursuant to Rule 4.13, the Exchange may also list options on the S&P 500 Index whose exercise settlement value is derived from closing prices on the last trading day prior to expiration (P.M.-settled third Friday-of-the-month SPX options series). The Exchange may also list options on the Mini-SPX Index ("XSP") whose exercise settlement value is derived from closing prices on the last trading day prior to expiration ("P.M.-settled"). P.M.-settled third Friday-of-the-month SPX options series and P.M.-settled XSP options will be listed for trading for a pilot period ending November 4, 2019.

Rule 4.14. Debit Put Spread Cash Account Transactions

Debit put spread positions in European-style, broad-based index options traded on the Exchange (hereinafter "debit put spreads") may be maintained in a cash account as defined by Federal Reserve Board Regulation T Section 220.8 by a public customer, provided that the following procedures and criteria are met:

- (a) The customer has received Exchange approval to maintain debit put spreads in a cash account carried by a TPH organization. A customer so approved is hereinafter referred to as a "spread exemption customer."
- (b) The spread exemption customer has provided all information required on Exchange-approved forms and has kept such information current.
- (c) The customer holds a net long position in each of the stocks of a portfolio which has been previously established or in securities readily convertible, and additionally in the case of convertible bonds economically convertible, into common stocks which would comprise a portfolio. The debit put spread position must be carried in an account with a member of a self- regulatory organization participating in the Intermarket Surveillance Group.
- (d) The stock portfolio or its equivalent is composed of net long positions in common stocks in at least four industry groups and contains at least twenty stocks, none of which accounts for more than fifteen percent of the value of the portfolio (hereinafter "qualified portfolio"). To remain qualified, a portfolio must at all times meet these standards notwithstanding trading activity in the stocks.

- (e) The exemption applies to European-style broad-based index options dealt in on the Exchange to the extent the underlying value of such option position does not exceed the unhedged value of the qualified portfolio. The unhedged value would be determined as follows:
 - (1) the values of the net long or short positions of all qualifying products in the portfolio are totaled;
 - (2) for positions in excess of the standard limit, the underlying market value (A) of any economically equivalent opposite side of the market calls and puts in broad-based index options, and (B) of any opposite side of the market positions in stock index futures, options on stock index futures, and any economically equivalent opposite side of the market positions, assuming no other hedges for these contracts exist, is subtracted from the qualified portfolio; and
 - (3) the market value of the resulting unhedged portfolio is equated to the appropriate number of exempt contracts as follows—the unhedged qualified portfolio is divided by the correspondent closing index value and the quotient is then divided by the index multiplier or 100.
- (f) A debit put spread in Exchange traded broad-based index options with European-style exercises is defined as a long put position coupled with a short put position overlying the same broad-based index and having an equivalent underlying aggregate index value, where the short put(s) expires with the long put(s), and the strike price of the long put(s) exceeds the strike price of the short put(s). A debit put spread will be permitted in the cash account as long as it is continuously associated with a qualified portfolio of securities with a current market value at least equal to the underlying aggregate index value of the long side of the debit put spread.
- (g) The qualified portfolio must be maintained with either a TPH organization, another broker-dealer, a bank, or securities depository.
- (h) The spread exemption customer shall agree promptly to provide the Exchange any information requested concerning the dollar value and composition of the customer's stock portfolio, and the current debit put spread positions.
- (i) The spread exemption customer shall agree to and any TPH organization carrying an account for the customer shall:
 - (1) comply with all Exchange rules and regulations;
 - (2) liquidate any debit put spreads prior to or contemporaneously with a decrease in the market value of the qualified portfolio, which debit put spreads would thereby be rendered excessive; and
 - (3) promptly notify the Exchange of any change in the qualified portfolio or the debit put spread position which causes the debit put spreads maintained in the cash account to be rendered excessive.

- (j) If any TPH organization carrying a cash account for a spread exemption customer with a debit put spread position dealt in on the Exchange has a reason to believe that as a result of an opening options transaction the customer would violate this spread exemption, and such opening transaction occurs, then the TPH organization has violated this Rule.
- (k) Violation of any of these provisions, absent reasonable justification or excuse, shall result in withdrawal of the spread exemption and may form the basis for subsequent denial of an application for a spread exemption hereunder.

Rule 4.15. Range Options

(a) *General*. This Rule 4.15 applies only to Range Options. All Rules apply to the trading of Range Options, except as otherwise provided or the context otherwise requires.

(b) *Definitions*.

Contract Multiplier

The term "Contract Multiplier" as used in reference to Range Options means the multiple applied to the exercise value to arrive at the exercise settlement amount per contract. The Contract Multiplier is established on a class-by-class basis and shall be at least one and is expressed in a dollar amount.

Exercise Price

The term "Exercise Price" (i.e., strike price) as used in reference to a Range Option means the range of index values (i.e., Range Length) at which the option will be exercised at expiration. The exercise price for Range Options will be used to determine the degree that the option is inthe-money if the settlement value of the underlying index falls within either the High Range or Low Range of the Range Length. If the settlement value of the underlying index falls within the Middle Range, the option will be exercised at the Maximum Exercise Value.

Exercise Settlement Amount

The term "Exercise Settlement Amount" as used in reference to a Range Option means the amount of cash that a holder will receive and a writer will be obligated to pay upon exercise of the contract. The Exercise Settlement Amount is equal to the exercise value (i.e., Low Range Exercise Value or High Range Exercise Value or Maximum Range Exercise Value) times the contract multiplier.

High Range and High Range Exercise Value

The term "High Range" means a segment of values along the Range Length (as determined by the Range Interval) that immediately succeeds the Middle Range. For a Range Option, if the settlement value of the underlying index at expiration falls within the High Range, the option will have a linear payout structure that decreases as the index value increases within the High Range. The "High Range Exercise Value" is an amount that varies and begins at a capped

amount immediately succeeding the end of the Middle Range (i.e., Maximum Range Exercise Value) and decreases along the length of the High Range and ends at 0.

Low Range and Low Range Exercise Value

The term "Low Range" means a segment of values along the Range Length (as determined by the Range Interval) that immediately precedes the Middle Range. For a Range Option, if the settlement value of the underlying index at expiration falls within the Low Range, the option will have a linear payout structure that increases as the index value increases within the Low Range. The "Low Range Exercise Value" is an amount that varies and begins at 0 and increases along the length of the Low Range and ends at a capped amount immediately preceding the start of the Middle Range (i.e., Maximum Range Exercise Value).

Middle Range and Maximum Range Exercise Value

The term "Middle Range" means a segment of values along the Range Length that lies between the Low Range and the High Range and its length is equal to the Range Length minus twice the Range Interval. For a Range Option, if the settlement value of the underlying index at expiration falls within the Middle Range, the "Maximum Range Exercise Value" will be a fixed amount that does not vary based on where in the Middle Range the settlement value of the underlying index falls and represents the maximum payout amount for Range Options. The Exchange sets the Maximum Range Exercise Value at listing.

Range Interval

The term "Range Interval" means an interval amount that determines the range size of both the Low Range and the High Range. The minimum Range Interval amount is 5 index points. The Exchange sets the Range Interval at listing.

Range Length

The term "Range Length" means the entire length of the range of values of the underlying index for which the option pays a positive amount if the Settlement Value of the underlying index falls within the specific Range Length at expiration. The Exchange sets the Range Length at listing.

Range Option

The term "Range Option" means a European-style, cash-settled option contract that pays an exercise settlement amount if the settlement value of the underlying index at expiration falls within the specified Range Length.

Settlement Value

The term "Settlement Value" means the underlying index value at expiration of the Range Option.

(c) Designation of Range Option Contracts.

- (1) The Exchange may from time to time, approve for listing and trading on the Exchange Range Option contracts that overlie any index that is eligible for options trading on the Exchange. Range Options are a separate class from other options overlying the same index.
- (2) The Exchange may add new series of Range Options of the same class (i.e., overlying the same index) as provided for by the rules governing options on the same underlying index. Additional series of Range Options may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market or to meet customer demand. The opening of a new series of Range Options on the Exchange will not affect any other series of options of the same class previously opened.
- (d) *Maintenance Listing Standards*. The maintenance listing standards with respect to options on indexes set forth in Rule 4.10 and the Interpretations and Policies thereunder shall be applicable to Range Options on indexes.
- (e) Determination of the Settlement Value of the Underlying Index. Range Options that are "inthe-money," or "out-of-the-money" are a function of whether the settlement value of the underlying index at expiration falls within or outside of the Range Length.

Rule 4.16. Binary Options

(a) *General*. This Rule 4.16 applies only to Binary Options. All Rules apply to the trading of Binary Options, except as otherwise provided or the context otherwise requires.

(b) *Definitions*.

Binary Option

The term "binary option" means a European-style option contract having an exercise settlement amount that is established at the creation of the option. Binary options are paid out if settlement value of the underlying broad-based index equals, exceeds or is less than the exercise price, depending on the type of option (i.e., call or put).

Call Binary Option

The term "call binary option" means an option contract which returns an exercise settlement amount if the settlement value of the underlying broad-based index is at or above the exercise price at expiration (i.e., in- or at-the-money).

Contract Multiplier

The term "contract multiplier" as used in reference to a binary option means the multiple applied to the exercise settlement value to arrive at the total exercise settlement amount per contract. The contract multiplier is established on a class-by-class basis and shall be at least one.

Exercise Price

The term "exercise price" as used in reference to a binary option means the value to which the settlement value of the underlying broad-based index is compared to determine whether the holder of a binary option is entitled to have the option be paid out.

Exercise Settlement Amount

The term "exercise settlement amount" as used in reference to a binary option means the amount of cash that a holder will receive upon exercise of the contract. The exercise settlement amount is a set amount equal to the exercise settlement value multiplied by the contract multiplier. The exercise settlement value will be an amount determined by the Exchange on a class-by-class basis and shall be equal to \$10 or \$1,000 or a value between those values, unless otherwise adjusted per Rule 4.6.

Put Binary Option

The term "put binary option" means an option contract which returns an exercise settlement amount if the settlement value of the underlying broad-based index is below the exercise price at expiration (i.e., in-the-money).

Settlement Value

The term "settlement value" is the value of the underlying broad-based index that is used to determine whether a binary option is in, at or out of the money. For binary options on a broad-based index on which traditional options on the same broad-based index are A.M.-settled, the "settlement value" is the reported opening level of such index as derived from the prices of the underlying securities on such day and as reported by the reporting authority for the index. For binary options on a broad-based index on which traditional options on the same broad-based index are P.M.-settled, the "settlement value" is the reported closing level of such index as derived from the prices of the underlying securities on such day and as reported by the reporting authority for the index.

(c) Designation of Binary Option Contracts.

- (1) The Exchange may from time to time approve for listing and trading on the Exchange binary option contracts on a broad-based index which has been selected in accordance with Rule 4.10 and the Interpretations and Policies thereunder. Binary options are a separate class from other options overlying the same broad-based index.
- (2) Only binary option contracts approved by the Exchange and currently open for trading on the Exchange may be purchased or sold on the Exchange. Binary options dealt in on the Exchange are designated as to expiration date, exercise price, exercise settlement amount, contract multiplier and underlying broad-based index. Binary options on broad-based indexes for which traditional options on the same broad-based index are A.M.-settled will be A.M.-settled, and binary options on broad-based indexes for which

- traditional options on the same broad-based index are P.M.-settled (i.e., S&P 100 Index ("OEX")) will be P.M.-settled.
- (3) After a particular binary option class has been approved for listing and trading on the Exchange, the Exchange from time to time may open for trading series of options on that class. Binary option series may be designated to expire from one day up to 36 months from the time that they are listed.
- (4) The Exchange may add new series of options of the same class as provided for in Rule 4.13 and the Interpretations and Policies thereunder. Additional series of the same binary option class may be opened for trading on the Exchange when the Exchange deems it necessary to maintain an orderly market or to meet customer demand. The opening of a new series of binary options on the Exchange will not affect any other series of options of the same class previously opened.
- (d) *Maintenance Listing Standards*. The maintenance listing standards with respect to options on broad-based indexes set forth in Rule 4.10 and the Interpretations and Policies thereunder shall be applicable to binary options on broad-based indexes.
- (e) Determination of Settlement Value. Binary options that are "at-the-money," "in-the-money," or "out-of-the-money" are a function of the settlement value of the underlying broad-based index in relation to the type of binary option (i.e., put or call) and the exercise price.
- (f) Adjustment. Binary option contracts are subject to adjustment only in accordance with and to the extent specified in the By-Laws and Rules of the Clearing Corporation. When any such adjustment has been determined, announcement thereof shall be made by the Exchange and shall become effective as of the time specified in such announcement.
- (g) FLEX Trading. Binary options on indexes that are eligible for options trading on the Exchange shall be eligible for trading as Flexible Exchange Options as provided for in Chapter 4, Section C, even if the Exchange does not list and trade Non-FLEX binary options or Non-FLEX traditional options on such indexes. For purposes of Rule 4.21, the applicable exercise settlement value shall be designated by the parties to the contract, the parties may not designate an exercise style other than European-style, and the term "index multiplier" shall refer to the contract multiplier. Rule 8.35 shall not apply to binary options and the position limit methodology set forth in Rule 8.36 shall apply.

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