



Special Executive Report

DATE: December 22, 2022
SER#: 9115
SUBJECT: Amendments to the Three-Month Eurodollar Futures and Options on Three-Month Eurodollar Futures Contracts to Amend London Inter-bank Offered Rate (“LIBOR”) Fallback Provisions

Effective February 6, 2023, pending Commodity Futures Trading Commission (“CFTC” or “Commission”) approval, Chicago Mercantile Exchange Inc. (“CME” or the “Exchange”) will implement amendments to the Three-Month Eurodollar Futures and Options on Three-Month Eurodollar Futures contracts (the “Contracts”) to amend existing contractual fallbacks for the Contracts (collectively, the “Rule Amendments”).

Contract Title	CME Globex/ CME ClearPort Code/ Open Outcry-Trading Floor	CME Rulebook Chapter
Three-Month Eurodollar Futures	GE/ED	452
Options on Three-Month Eurodollar Futures	GE/ED/Put: PE; Call: CE 1 Year Mid Curve GE0/ E0 2 Year Mid Curve GE2/E2 3 Year Mid Curve GE3/E3 4 Year Mid Curve GE4/E4 5 Year Mid Curve GE5/E5	452A

The Contracts reference three-month US Dollar ICE LIBOR (“USD LIBOR”) and the Rule Amendments are required to effect contractual fallbacks for the Contracts ahead of the scheduled final date for publication of a “representative” USD LIBOR rate, following the announcement by the UK Financial Conduct Authority (as supervisor of the administrator of USD LIBOR) on March 5, 2021 that USD LIBOR will cease to be representative of the underlying market or economic reality it intends to measure immediately following publication on June 30, 2023 (the “Scheduled Final Representative USD LIBOR Publication Date”) (the “FCA Announcement”).

The Rule Amendments shall be binding on existing and new position holders in such contracts from the effective date of the Rule Amendments and the contractual fallbacks set out in the Rule Amendments shall be implemented by the Exchange on April 14, 2023, subject to the terms of the Rule Amendments.

CME previously amended the terms of the Contracts in March 2021 to implement contractual fallback provisions for the Contracts ([SER-8720](#) dated February 9, 2021), which were designed to address the permanent cessation or “non-representativeness” of USD LIBOR and which would take effect from such cessation or final “representative” publication. Following extensive engagement with market participants

relating to the FCA Announcement and wider market transition schedules for USD LIBOR during 2022, the Exchange proposes to implement the Rule Amendments to bring forward the effective date of the contractual fallbacks applicable to the Contracts to April 14, 2023. This change to the operation of the existing contractual fallbacks for the Contracts is necessary to ensure that relevant open positions in the Contracts are transitioned away from USD LIBOR: (i) in good time ahead of the Scheduled Final Representative USD LIBOR Publication Date; and (ii) at a time scheduled to be closely coordinated with the scheduling of the equivalent OTC IRS industry USD LIBOR transition process, in order to limit the operational risk and processing throughput challenges of market participants subject to the bilateral uncleared derivatives market transitions that will take place around the Scheduled Final Representative USD LIBOR Publication Date.¹

The Rule Amendments provide that the contractual fallbacks shall apply to positions in the Contracts relating to underlying futures expiring after June 30, 2023 (the “Affected Contracts”). Following close of business on April 14, 2023 (subject to the terms of the Rule Amendments) the Exchange proposes to terminate trading in the Affected Contracts and CME will convert open positions in the Affected Contracts into positions in the corresponding CME Three-Month SOFR Futures or CME Options on Three-Month SOFR Futures contract, as applicable.

The conversion methodology and contractual fallback procedures have been designed by CME to be aligned closely with the approach to fallbacks for cleared and uncleared over-the-counter interest rate swaps, and the proposed process is substantially similar to the methodology referenced in [SER 8720](#). CME has actively engaged with market participants regarding our approach to LIBOR fallbacks in OTC and listed products. The Exchange’s proposed changes to the fallback procedures for the Contracts have been discussed with market participants during 2022 and the relevant methodology was most recently published on September 6, 2022, which outlined the procedures detailed in the Rule Amendments.²

Additional details may be viewed in [CME Submission No. 22-567](#).

Amendments to CME Chapters 452 and 452A are provided in Exhibit 1 below in blackline format.

Please refer questions on this subject to:

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¹ Note that the Rule Amendments provide that only positions in the Contracts relating to underlying futures expiring after June 30, 2023 will be in scope and eligible for the conversion, based on the timeline set out in the FCA Announcement. The Rule Amendments further provide for certain limited circumstances where the Eurodollar Fallback Effective Date (as defined in the Rule Amendments) may be amended: (i) in the unlikely event of a “fallback event” in respect of USD LIBOR that supersedes the FCA Announcement, or (ii) in the event that CME determines in its sole and absolute discretion that the Eurodollar Fallback Effective Date must be amended, for example and without limitation, in response to operational, market disruption or financial stability issues that could threaten the orderly transition of the Contracts.

² For further details, please see https://www.cmegroup.com/media-room/press-releases/2022/9/06/cme_group_proposesapril142023forfallbacksconversionofeurodollar.html

Exhibit 1
CME Rulebook
(additions underscoring, deletions ~~overstruck~~)

Chapter 452
Three-Month Eurodollar Futures

45200. SCOPE OF CHAPTER

This chapter is limited in application to Three-Month Eurodollar futures (“futures” or “contract”). In addition to this chapter, futures shall be subject to the general rules and regulations of the Exchange insofar as applicable.

Unless otherwise specified, times referenced herein shall indicate Chicago time.

45201. CONTRACT SPECIFICATIONS

Each contract is valued at \$2,500 times the contract-grade IMM Index (Rule 45202.C.).

45202. TRADING SPECIFICATIONS

45202.A. Trading Schedule

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

45202.B. Trading Unit

For a contract for a given delivery month, the unit of trading shall be interest on an unsecured U.S. dollar-denominated wholesale bank funding transaction, with term to maturity of three months (“three-month term”), for spot settlement on the third Wednesday of such delivery month, expressed as an interest rate per annum for which (i) such interest rate shall accrue on the basis of the actual number of days spanned by such three-month term, divided by a 360-day year, and (ii) each basis point per annum of such interest rate shall be worth \$25 per futures contract.

45202.C. Price Increments

Contract prices shall be quoted in terms of the IMM Index (“Index”), 100.0000 minus the interest rate per annum corresponding to the three-month unsecured U.S. dollar-denominated wholesale bank funding transaction specified in Rule 45202.B. (For example, an interest rate of 2.055 percent per annum shall be quoted as an Index value of 97.9450.)

1. The Nearest Expiring Contract Month

The minimum price fluctuation shall be 0.0025 Index points, equal to \$6.25 per contract.

2. All Contract Months Excluding the Nearest Expiring Contract Month

The minimum price fluctuation shall be 0.005 Index points, equal to \$12.50 per contract.

45202.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

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

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

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

45202.E. Special Price Fluctuation Limits

At the commencement of each trading day, the contract shall be subject to special price fluctuation limits as set forth in Rule 589 and in the Special Price Fluctuation Limits Table in the Interpretations & Special Notices Section of Chapter 5.

45202.F.[Reserved]

45202.G. Termination of Trading

Trading in an expiring contract shall terminate at 11:00 a.m. London time on the second London bank business day immediately preceding the third Wednesday of the contract's named month of delivery.

45202.H. [Reserved]

45203. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

45203.A. Final Settlement Price

Subject to Rule 45236, the final settlement price of an expiring contract shall be 100.0000 minus the three-month U.S. dollar ICE LIBOR wholesale funding rate ("rate") for the second London bank business day immediately preceding the third Wednesday of the contract's named month of delivery. Such rate shall be as determined, and as first published, by ICE Benchmark Administration Limited. The value of such rate, so published, shall be rounded to the nearest 0.0001 percentage points per annum. Tie values, i.e., any such values ending in 0.00005, shall be rounded up. (For example, a rate of 8.65625 percent would be rounded up to 8.6563 percent, and then subtracted from 100.0000 to determine a contract final settlement price of 91.3437.)

45203.B. Final Settlement

Clearing members holding open positions in a contract at the time of termination of trading in that contract shall make payment to or receive payment from the Clearing House in accordance with normal variation performance bond procedures based on a settlement price equal to the final settlement price.

45204.-35. [RESERVED]

45236. REFERENCE RATE FALLBACK EVENT PROCEDURE

45236.A. Fallback Announcement

With respect to the rate in Rule 45203.A, on March 5, 2021, the U.K. Financial Conduct Authority, the regulatory supervisor for the administrator of the rate, made a public statement and publication of information to the effect that:

(i) it had determined that immediately following publication on June 30, 2023 (the "Scheduled Final Representative LIBOR Publication Date"), such rate will no longer be representative of the underlying market and economic reality that such rate is intended to measure and that representativeness will not be restored, and

(ii) such public statement and publication of information was made in the awareness that the statement or publication will engage certain contractual triggers for fallbacks activated by pre-cessionation announcements by such supervisor (howsoever described) in contracts,

(the "USD 3M LIBOR Fallback Announcement").

in the event of any of:

(i) a public statement or publication of information by or on behalf of the administrator of the rate announcing that it has ceased or will cease to provide the rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the rate;

(ii) a public statement or publication of information by the regulatory supervisor for the administrator of the rate, the central bank for the currency of the rate, an insolvency official with jurisdiction over the administrator for the rate, a resolution authority with jurisdiction over the administrator for the rate or a court or an entity with similar insolvency or resolution authority over the administrator for the rate, which states that the administrator of the rate has ceased or will cease to provide the rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the rate; or

(iii) a public statement or publication of information by the regulatory supervisor for the administrator of the rate announcing that:

~~(A) the regulatory supervisor has determined that such rate is no longer, or as of a specified future date will no longer be, representative of the underlying market and economic reality that such rate is intended to measure and that representativeness will not be restored, and~~

~~(B) it is being made in the awareness that the statement or publication will engage certain contractual triggers for fallbacks activated by pre-cessation announcements by such supervisor (howsoever described) in contracts,~~

~~(a “USD 3M LIBOR Fallback Announcement”), the Exchange shall utilize the process in Rule 45236.B. Following the USD 3M LIBOR Fallback Announcement the Exchange shall utilize the process in Rule 45236.C.~~

45236.B. Eurodollar Fallback Effective Date

~~The Exchange shall determine the date on which it will implement the fallback procedure in Rule 45236.C (the “Eurodollar Fallback Effective Date”) in accordance with this Rule 45236.B.~~

~~The Eurodollar Fallback Effective Date shall be April 14, 2023, except:~~

~~(i) where the Exchange determines at any time in its sole and absolute discretion that implementation of the fallback procedure on such date could result in an unacceptable level of operational or market disruption or where financial stability issues could threaten the orderly transition of the contract; or~~

~~(ii) following a Successor USD 3M LIBOR Fallback Announcement (as defined in Rule 45236.F),~~

~~upon which the Exchange shall determine in its sole and absolute discretion:~~

~~(A) an alternative date which shall be the Eurodollar Fallback Effective Date for the purposes of this Rule 45236; and~~

~~(B) an alternative date which shall be the Scheduled Final Representative LIBOR Publication Date for the purposes of this Rule 45236,~~

~~having regard to any Successor USD 3M LIBOR Fallback Announcement, as applicable, and the Exchange shall provide notification of such amended Eurodollar Fallback Effective Date to market participants as soon as reasonably practicable following such determination.~~

~~In the event of a USD 3M LIBOR Fallback Announcement, with effect from the date of:~~

~~(i) the first date on which the rate is no longer provided; or~~

~~(ii) the first date on which the rate is non-representative by reference to the most recent statement or publication referred to in Rule 45236.A(iii) and even if the rate continues to be provided on such date,~~

~~(the “Eurodollar Fallback Effective Date”), the Exchange shall convert open positions in the contract on the Eurodollar Fallback Effective Date into corresponding positions in another Exchange contract in accordance with the process in Rule 45236.C.~~

45236.C. Fallback Procedure

~~Following close of business o~~~~On the Eurodollar Fallback Effective Date, the Exchange shall convert all open positions in the contract that expire after the Scheduled Final Representative LIBOR Publication Date (each, a “Conversion Position”) as follows:~~

~~(i) each open position in the contract that is a Conversion Position shall be terminated at the most recent daily settlement price for the contract on the Eurodollar Fallback Effective Date; and~~

~~(ii) such position shall be replaced with a corresponding open position in CME Three-Month SOFR Futures (Chapter 460) (a “Replacement Position”).~~

~~The Replacement Position shall be assigned to a position holder by the Exchange in accordance with the following procedure:~~

~~(i) the Replacement Position in CME Three-Month SOFR Futures shall be equal in trading unit size and direction to the position in the contract and with the same delivery month; and~~

(ii) the price at which the Replacement Position is assigned to the position holder (the "Assignment Price") shall be determined by the Exchange and shall be equal to:

(A) the most recent daily settlement price for the contract on the Eurodollar Fallback Effective Date,

plus

(B) a value adjustment amount which shall be equal to the fixed Spread Adjustment for the rate in Rule 45203.A published by Bloomberg Index Services Limited (0.26161%),

rounded to four (4) decimal places and calculated in accordance with industry agreed conventions for fallback events for over-the-counter swaps referencing the rate in Rule 45203.A;

(iii) to account for the rounding of the Assignment Price to four (4) decimal places, the Exchange shall apply to each Replacement Position a cash adjustment amount which shall be due from or payable to the position holder [at the next end of day settlement cycle following close of business on the Eurodollar Fallback Effective Date] according to the direction of the position and shall be equal to:

0.00001 x the contract quantity x \$2,500 contract unit multiplier,

as determined by the Exchange utilizing the methodology published by the Exchange.

45236.D. Clearing of the Replacement Position

Clearing of the Replacement Position shall be subject to the Rules for CME Three-Month SOFR Futures (Chapter 460), including for the avoidance of doubt the determination of daily and final settlement prices in respect of each Replacement Position, ~~from the Eurodollar Fallback Effective Date.~~

45236.E. Termination of Trading

(1) On the Eurodollar Fallback Effective Date, trading in the ~~contract~~ contracts expiring after the Scheduled Final Representative LIBOR Publication Date shall be terminated and ~~the such~~ contracts shall no longer be available for trading on the Exchange with immediate effect.

(2) Trading in the contracts expiring before the Scheduled Final Representative LIBOR Publication Date shall continue after the Eurodollar Fallback Effective Date until the date of termination of trading of such contracts under Rule 45202.G.

45236.F. Successor USD 3M LIBOR Fallback Announcement

With respect to the rate in Rule 45203.A, in the event of any of:

(i) a public statement or publication of information by or on behalf of the administrator of the rate announcing that it has ceased or will cease to provide the rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the rate;

(ii) a public statement or publication of information by the regulatory supervisor for the administrator of the rate, the central bank for the currency of the rate, an insolvency official with jurisdiction over the administrator for the rate, a resolution authority with jurisdiction over the administrator for the rate or a court or an entity with similar insolvency or resolution authority over the administrator for the rate, which states that the administrator of the rate has ceased or will cease to provide the rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the rate; or

(iii) a public statement or publication of information by the regulatory supervisor for the administrator of the rate announcing that:

(A) the regulatory supervisor has determined that such rate is no longer, or as of a specified future date will no longer be, representative of the underlying market and economic reality that such rate is intended to measure and that representativeness will not be restored, and

(B) it is being made in the awareness that the statement or publication will engage certain contractual triggers for fallbacks activated by pre-cessation announcements by such supervisor (howsoever described) in contracts,

issued subsequent to the USD 3M LIBOR Fallback Announcement and prior to the Eurodollar Fallback Effective Date (a "Successor USD 3M LIBOR Fallback Announcement"), the Exchange shall utilize the process in Rule 45236.B.

(End Chapter 452)

**INTERPRETATIONS AND SPECIAL NOTICES
RELATING TO CHAPTER 452**

The Exchange has entered into an agreement with ICE Benchmark Administration Limited which permits the Exchange to use ICE LIBOR as the basis for settling Three-Month Eurodollar futures contracts and to refer to ICE LIBOR in connection with creating, marketing, trading, clearing, settling and promoting Three-Month Eurodollar futures contracts.

Three-Month Eurodollar futures contracts are not in any way sponsored, endorsed, sold or promoted by ICE Benchmark Administration Limited, and ICE Benchmark Administration Limited, has no obligation or liability in connection with the trading of any such contracts. ICE LIBOR is compiled and calculated solely by ICE Benchmark Administration Limited. However, ICE Benchmark Administration Limited, shall not be liable (whether in negligence or otherwise) to any person for any error in ICE LIBOR, and ICE Benchmark Administration Limited, shall not be under any obligation to advise any person of any error therein.

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Chapter 452A

Options on Three-Month Eurodollar Futures

452A00. SCOPE OF CHAPTER

This chapter is limited in application to options on Three-Month Eurodollar futures ("options"). In addition to this chapter, options shall be subject to the general rules and regulations of the Exchange insofar as applicable.

Unless otherwise specified, times referenced herein shall refer to and indicate Chicago time.

452A01. OPTION CHARACTERISTICS

452A01.A. Contract Months and Trading Hours

Options shall be listed for expiration on such dates and shall be scheduled for trading during such hours as may be determined by the Exchange

452A01.B. Trading Unit

The trading unit shall be an option to buy in the case of the call, or to sell in the case of the put, one Three-Month Eurodollar futures contract (Chapter 452).

452A01.C. Minimum Fluctuations

The price of an option shall be quoted in IMM Index points corresponding to such option's underlying futures contract (Rule 452A01.D). Pursuant to Rules 45202.C., each 0.01 IMM Index point signifies one (1) basis point per annum of interest rate exposure in such underlying futures contract's Trading Unit (Rule 45202.B.), and is equal to \$25 per option contract. For example, an option contract price of 0.35 IMM Index points represents \$875 (equal to 35 basis points x \$25 per basis point per option contract).

Minimum price fluctuations shall be as follows –

1. Quarterly Standard Options (Rule 452A01.D.1.) Expiring in the Nearest March Quarterly Month

Where such options are for the next nearest monthly option expiration date, the minimum price fluctuation shall be 0.0025 IMM Index points (equal to \$6.25 per option contract).

Where such options are not for the next nearest monthly option expiration date, then:

Where any such option trades outright at a premium not greater than 0.05 IMM Index points, the minimum price fluctuation shall be 0.0025 IMM Index points (equal to \$6.25 per option contract).

Where any such option trades outright at a premium greater than 0.05 IMM Index points, the minimum price fluctuation shall be 0.005 IMM Index points (equal to \$12.50 per option contract).

2. Quarterly Standard Options (Rule 452A01.D.1.) Expiring in the Second-Nearest March Quarterly Month, Serial Options (Rule 452A01.D.2.), and Three-Month Mid-Curve Options (Rule 452A01.D.8.)

Where any such option trades outright at a premium not greater than 0.05 IMM Index points, the minimum price fluctuation shall be 0.0025 IMM Index points (equal to \$6.25 per option contract).

Where any such option trades outright at a premium greater than 0.05 IMM Index points, the minimum price fluctuation shall be 0.005 IMM Index points (equal to \$12.50 per option contract).

3. All Other Quarterly Standard Options (Rule 452A01.D.1.) and All Other Mid-Curve Options (Rules 452A01.D.3. through 452A01.D.7., 452A01.D.9., and 452A01.D.10.)

For all Quarterly Standard options other than those that expire in the nearest March Quarterly month or the second-nearest March Quarterly month, and for all Mid-Curve options other than Three-Month Mid-Curve options, the minimum price fluctuation shall be 0.005 IMM Index points (equal to \$12.50 per option contract), provided that trade may occur at a price level of 0.0025 IMM Index point (equal to

\$6.25 per option contract), whether or not such trade results in liquidation of positions for both parties to such trade.

4. Option Spreads and Combinations

All option spreads and combinations shall trade in minimum price increments of 0.005 IMM Index points, subject to the following exceptions:

- (a) An option spread or combination may trade in minimum price increments of 0.0025 IMM Index points if (i) such option spread or combination comprises only Quarterly Standard Options Expiring in the Nearest March Quarterly Month (Rule 452A01.C.1.), and (ii) all such options are for the nearest monthly option expiration date.
- (b) An option spread or combination may trade in minimum price increments of 0.0025 IMM Index points if such option spread or combination (i) trades at a net premium not greater than 0.05 IMM Index points and not less than -0.05 IMM Index points and (ii) comprises only such options as are specified in Rule 452A01.C.1. and/or 452A01.C.2.

For the avoidance of doubt, any option spread or combination that comprises one or more options specified in Rule 452A01.C.3. shall trade in minimum price increments of 0.005 IMM Index points.

For the purpose of Rule 813 for Settlement Prices, the minimum price fluctuation for all options shall be 0.0025 IMM Index point (equal to \$6.25 per option contract).

Where the price of an option is quoted in volatility terms, the minimum fluctuation shall be 0.05 percent.

452A01.D. Underlying Futures Contracts

1. Options in the March Quarterly Cycle (“Quarterly Standard Options”)

For options that expire in any month in the March quarterly cycle (i.e., March, June, September, and December), except for those Mid-Curve options specified in Paragraphs 3, 4, 5, 6, 7, 8, 9, or 10 of this Rule, the underlying futures contract is for the month in which such options expire. For example, for a given year, the underlying futures contract for an option that expires in March is the March futures contract.

2. Options Not in the March Quarterly Cycle (“Serial Options”)

For options that expire in any month other than those in the March quarterly cycle, (i.e., January, February, April, May, July, August, October, and November), except for those Mid-Curve options specified in Paragraphs 3, 4, 5, 6, 7, 8, 9, or 10 of this Rule, the underlying futures contract is for the next month in the March quarterly cycle that is nearest the expiration of such options. For example, for a given year, the underlying futures contract for such options that expire in January or February is the March futures contract.

3. One-Year Mid-Curve Options

One-Year Mid-Curve Options in the March Quarterly Cycle (“Quarterly One-Year Mid-Curve Options”)

For One-Year Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 12 calendar months after the month in which such options expire.

One-Year Mid-Curve Options Not in the March Quarterly Cycle (“Serial One-Year Mid-Curve Options”)

For Serial One-Year Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 12 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, the underlying futures contract for the Serial One-Year Mid-Curve options that expire in January or February of a given year is the March futures contract that expires one year hence.

Weekly One-Year Mid-Curve Options

For Weekly One-Year Mid-Curve Options, the underlying futures contract is the futures contract that expires 12 calendar months from the next March quarterly month that is nearest to the expiration of such options.

4. Two-Year Mid-Curve Options

Two-Year Mid-Curve Options in the March Quarterly Cycle (“Quarterly Two-Year Mid-Curve Options”)

For Two-Year Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 24 calendar months after the month in which such options expire.

Two-Year Mid-Curve Options Not in the March Quarterly Cycle (“Serial Two-Year Mid-Curve Options”)

For Serial Two-Year Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 24 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, the underlying futures contract for the Serial Two-Year Mid-Curve options that expire in January or February of a given year is the March futures contract that expires two years hence.

Weekly Two-Year Mid-Curve Options

For Weekly Two-Year Mid-Curve Options, the underlying futures contract is the futures contract that expires 24 calendar months from the next March quarterly month that is nearest to the expiration of such options.

5. Three-Year Mid-Curve Options

Three-Year Mid-Curve Options in the March Quarterly Cycle ("Quarterly Three-Year Mid-Curve Options")

For Three-Year Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 36 calendar months after the month in which such options expire.

Three-Year Mid-Curve Options Not in the March Quarterly Cycle ("Serial Three-Year Mid-Curve Options")

For Serial Three-Year Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 36 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, the underlying futures contract for the Serial Three-Year Mid-Curve options that expire in January or February of a given year is the March futures contract that expires three years hence.

Weekly Three-Year Mid-Curve Options

For Weekly Three-Year Mid-Curve Options, the underlying futures contract is the futures contract that expires 36 calendar months from the next March quarterly month that is nearest to the expiration of such options.

6. Four-Year Mid-Curve Options

Four-Year Mid-Curve Options in the March Quarterly Cycle ("Quarterly Four-Year Mid-Curve Options")

For Four-Year Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 48 calendar months after the month in which such options expire.

Four-Year Mid-Curve Options Not in the March Quarterly Cycle ("Serial Four-Year Mid-Curve Options")

For Serial Four-Year Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 48 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, the underlying futures contract for the Serial Four-Year Mid-Curve options that expire in January or February of a given year is the March futures contract that expires four years hence.

Weekly Four-Year Mid-Curve Options

For Weekly Four-Year Mid-Curve Options, the underlying futures contract is the futures contract that expires 48 calendar months from the next March quarterly month that is nearest to the expiration of such options.

7. Five-Year Mid-Curve Options

Five-Year Mid-Curve Options in the March Quarterly Cycle ("Quarterly Five-Year Mid-Curve Options")

For Five-Year Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 60 calendar months after the month in which such options expire.

Five-Year Mid-Curve Options Not in the March Quarterly Cycle ("Serial Five-Year Mid-Curve Options")

For Serial Five-Year Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 60 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, the underlying futures contract for the Serial Five-Year Mid-Curve options that expire in January or February of a given year is the March futures contract that expires five years hence.

Weekly Five-Year Mid-Curve Options

For Weekly Five-Year Mid-Curve Options, the underlying futures contract is the futures contract that expires 60 calendar months from the next March quarterly month that is nearest to the expiration of such options.

8. Three-Month Mid-Curve Options

Three-Month Mid-Curve Options in the March Quarterly Cycle ("Quarterly Three-Month Mid-Curve Options")

For Three-Month Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 3 calendar months after the month in which such options expire.

Three-Month Mid-Curve Options Not in the March Quarterly Cycle ("Serial Three-Month Mid-Curve Options")

For Serial Three-Month Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 3 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, for a given year, the underlying futures contract for the Serial Three-Month Mid-Curve options that expire in January or February is the June futures contract.

9. Six-Month Mid-Curve Options

Six-Month Mid-Curve Options in the March Quarterly Cycle ("Quarterly Six-Month Mid-Curve Options")

For Six-Month Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 6 calendar months after the month in which such options expire.

Six-Month Mid-Curve Options Not in the March Quarterly Cycle ("Serial Six-Month Mid-Curve Options")

For Serial Six-Month Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 6 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, for a given year, the underlying futures contract for the Serial Six-Month Mid-Curve options that expire in January or February is the September futures contract.

10. Nine-Month Mid-Curve Options

Nine-Month Mid-Curve Options in the March Quarterly Cycle ("Quarterly Nine-Month Mid-Curve Options")

For Nine-Month Mid-Curve options that expire in any month in the March quarterly cycle, the underlying futures contract is the futures contract that expires 9 calendar months after the month in which such options expire.

Nine-Month Mid-Curve Options Not in the March Quarterly Cycle ("Serial Nine-Month Mid-Curve Options")

For Serial Nine-Month Mid-Curve Options that expire in any month other than those in the March quarterly cycle, the underlying futures contract is the futures contract that expires 9 calendar months from the next March quarterly month that is nearest to the expiration of such options. For example, for a given year, the underlying futures contract for the Serial Nine-Month Mid-Curve options that expire in January or February is the December futures contract.

452A01.E. Exercise Prices

1. Twenty-Five Point Exercise Prices

For options for a given expiration date that are exercisable into a given underlying futures contract, exercise prices shall be stated in terms of the IMM Index for such underlying futures contract and shall be stated in intervals whose last two digits are 00, 25, 50, or 75 ("twenty-five point exercise prices") for all IMM Index levels, e.g., 88.00, 88.25, 88.50, 88.75.

The Exchange shall list put and call options for trading at the exercise price that is nearest the previous day's settlement price of such underlying futures contract ("at-the-money exercise price") and at all eligible exercise prices in a range from 5.50 IMM Index points above to 5.50 IMM Index points below such at-the-money exercise price. Thereafter until termination of trading in such options, the Exchange shall ensure that put and call options are listed for trading on each day at all eligible exercise prices in a range from 5.50 IMM Index points above to 5.50 IMM Index points below the at-the-money exercise price for such underlying futures contract. New options may be listed for trading up to and including the termination of trading.

2. Special Listings of 12.5 Point Exercise Prices

For options for a given expiration date that are exercisable into a given underlying futures contract, with the exception of certain option expiries with 6.25 Point Exercise Prices (Rule 452A01.E.3.), additional exercise prices shall be stated in intervals whose last three digits are 12.5, 37.5, 62.5, or 87.5 ("12.5 point exercise prices") for all IMM Index levels, e.g., 93.125, 93.375, 93.625, 93.875.

The Exchange shall ensure that put and call options are listed for trading on each day at all such 12.5 point exercise prices in a range from 1.50 IMM Index points above to 1.50 IMM Index points below the at-the-money exercise price for such underlying futures contract.

3. Special Listings of 6.25 Point Exercise Prices

From time to time as determined by the Exchange, additional exercise prices for selected expiries will be made available in intervals whose last four digits are 06.25, 12.50, 18.75, 31.25, 37.50, 43.75, 56.25, 62.50, 68.75, 81.25, 87.50, or 93.75 ("6.25 point exercise prices") for all IMM Index levels, e.g., 93.0625, 93.1250, 93.1875, 93.3125, 93.3750, 93.4375, 93.5625, 93.6250, 93.6875, 93.8125, 93.8750, 93.9375.

Until termination of trading in such options, the Exchange shall ensure that put and call options are listed for trading on each day at all such 6.25 point exercise prices in a range from 1.50 IMM Index points above to 1.50 IMM Index points below the at-the-money exercise price for such underlying futures contract.

4. Dynamically-Listed Exercise Prices

Upon demand and at the discretion of the Exchange, a new option contract with an out-of-current-range exercise price may be added, on an as-soon-as-possible basis, provided that the last two digits of the exercise price of such newly added option contract must be 00, 25, 50, or 75 (e.g., 88.00, 88.25, 88.50, 88.75).

The Exchange may modify the provisions governing the establishment of exercise prices as it deems appropriate.

452A01.F. Position Limits, Exemptions, Position Accountability and Reportable Levels

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

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion. Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

452A01.G. Special Price Fluctuation Limits

At the commencement of each trading day, the contract shall be subject to special price fluctuation limits as set forth in Rule 589 and in the Special Price Fluctuation Limits Table in the Interpretations & Special Notices Section of Chapter 5.

452A01.H-I. [Reserved]

452A01.J. Termination of Trading

1. Quarterly Standard Options

Trading in any Quarterly Standard Option shall terminate at the same date and time as the underlying futures contract for such Quarterly Standard Option.

2. Serial Options

Trading in any Serial Option shall terminate at the close of trading on the Friday preceding the third Wednesday of the month in which such option expires. If such Friday is a scheduled Exchange holiday, then trading shall terminate on the immediately preceding Business Day. In the event that the underlying futures market for such Serial Option does not open on the day scheduled for termination of trading in such option, then trading in such option shall be extended to the next day on which the underlying futures market is open for trading.

3. Mid-Curve Options

Trading in any Quarterly Mid-Curve Option or any Serial Mid-Curve option shall terminate at the close of trading on the Friday preceding the third Wednesday of the calendar month in which such option expires. If such Friday is a scheduled Exchange holiday, then trading shall terminate on the immediately preceding Business Day. In the event that the underlying futures market for such Mid-Curve option does not open on the day scheduled for termination of trading in such option, then trading in such option shall be extended to the next day on which the underlying futures market is open for trading.

Trading in Weekly Mid-Curve options shall terminate at the close of trading on those Fridays that are not also scheduled for termination of trading in Quarterly Mid-Curve Options or Serial Mid-Curve

Options. If such Friday is a scheduled Exchange holiday, then trading in Weekly Mid-Curve options shall terminate on the immediately preceding Business Day. In the event that the underlying futures market for any such Weekly Mid-Curve option does not open on the day scheduled for termination of trading in such option, then trading in such option shall be extended to the next day on which the underlying futures market is open for trading.

452A01.K. [Reserved]

452A02. EXERCISE AND ASSIGNMENT

In addition to the applicable procedures and requirements of Chapter 7, the following shall apply to the exercise of Eurodollar options.

452A02.A. Exercise of Option by Buyer

An option may be exercised by the buyer on any Business Day that the option is traded. To exercise an option, the clearing member representing the buyer shall present an exercise notice to the Clearing House by 5:30 p.m. on the day of exercise.

An option that is in-the-money and has not been liquidated or exercised prior to the termination of trading in such option shall be exercised automatically, in the absence of contrary instructions delivered to the Clearing House no later than 5:30 p.m. on the last day of trading by the clearing member representing the option buyer. An option is in the money if the settlement price of the underlying futures contract at the termination of trading lies above the exercise price in the case of a call, or lies below the exercise price in the case of a put.

Corrections to option exercises may be accepted by the Clearing House after the 5:30 p.m. deadline and up to the beginning of final option expiration processing, provided that such corrections are necessary due to: (1) a bona fide clerical error, (2) an unreconciled Exchange option transaction(s), or (3) an extraordinary circumstance where the clearing firm and customer are unable to communicate final option exercise instructions prior to the deadline. The decision whether a correction is acceptable will be made by the President of the Clearing House, or the President's designee, and such decision will be final.

452A02.B. Assignment

Exercise notices accepted by the Clearing House shall be assigned through a process of random selection to clearing members with open short positions in the same series. A clearing member to which an exercise notice is assigned shall be notified thereof as soon as practicable after such notice is assigned by the Clearing House, but not later than 45 minutes before the opening of Regular Trading Hours in the underlying futures contract on the following Business Day.

The clearing member assigned an exercise notice shall be assigned a short position in the underlying futures contract if a call is exercised or a long position if a put is exercised. The clearing member representing the option buyer shall be assigned a long position in the underlying futures contract if a call is exercised and a short position if a put is exercised.

All such futures positions shall be assigned at a price equal to the exercise price of the option and shall be marked to market in accordance with Rule 814 on the Trading Day of acceptance by the Clearing House of the exercise notice.

452A03. [RESERVED]

452A04. FALLBACK EVENT WITH RESPECT TO THREE-MONTH EURODOLLAR FUTURES

452A04.A Fallback Event with Respect to Three-Month Eurodollar Futures

In the event of a fallback event with respect to Three-Month Eurodollar futures contracts where the Exchange implements the Fallback Procedure in Rule 45236.C, on the Eurodollar Fallback Effective Date (as defined in Rule 45236-B) trading in Three-Month Eurodollar futures contracts expiring after the Scheduled Final Representative LIBOR Publication Date (as defined in Rule 45236.) ("Conversion Futures") will terminate in accordance with Rule 45236.E and trading in the option contracts referencing such Conversion Futures shall accordingly also terminate with immediate effect notwithstanding any other provision of this Chapter 452A. Any option contract referencing such Conversion Futures that has not been liquidated or exercised prior to the termination of trading shall be subject to the rules in Rule 452A04.B from the Eurodollar Fallback Effective Date.

452A04.B Fallback Procedure

On the Eurodollar Fallback Effective Date, the Exchange shall convert open positions in the option referencing such Conversion Futures into corresponding open positions in CME Options on Three-Month SOFR Futures (Chapter 460A) (a "Replacement Position") in accordance with the following procedure:

- (i) the open position in the option shall be terminated by the Exchange;
- (ii) the Exchange shall assign to the position holder a Replacement Position in standardized strikes and like contract months in CME Options on Three-Month SOFR Futures according to a methodology which will employ, among other things, standard options valuation models, and this methodology shall be determined by the Exchange in its absolute discretion and shall be published by the Exchange; and
- (ii)(iii) the Exchange shall apply a Premium Differential to each Replacement Position (as defined in Rule 45236.) to reflect the difference in option premium between the corresponding terminated position and the Replacement Position, which shall be determined by the Exchange in its absolute discretion utilizing the methodology in the preceding paragraph, and such Premium Differential shall be due to or payable by the position holder (as applicable) at the next end of day settlement cycle following close of business on the Eurodollar Fallback Effective Date.

452A04.C Clearing of the Replacement Position

Clearing of the Replacement Position shall be subject to the Rules for CME Options on Three-Month SOFR Futures (Chapter 460A) from the Eurodollar Fallback Effective Date.

452A04.D Termination of Trading

Trading in the options contracts referencing Three-Month Eurodollar Futures that are not Conversion Futures shall continue after the Eurodollar Fallback Effective Date until the date of termination of trading of such contracts under 452A01.J. Termination of Trading.

(End Chapter 452A)