

VIA CFTC PORTAL

Mr Christopher Kirkpatrick
Commodity Futures Trading Commission
115 21st Street NW
Three Lafayette Centre
Washington DC 20581

10 July 2020

LCH Limited Self-Certification: Updated close out process for SOFR transition

Dear Mr Kirkpatrick

Pursuant to CFTC regulation §40.6(a), LCH Limited (“LCH”), a derivatives clearing organization registered with the Commodity Futures Trading Commission (the “CFTC”), is submitting for self-certification additional rule changes to support the transition of discounting and Price Alignment Interest / Price Alignment Amount (“PAI/PAA”) on all SwapClear USD-discounted products.

Part I: Explanation and Analysis

As noted in LCH’s self-certification of 18 June 2020¹ LCH plans to switch discounting and PAI/PAA on all SwapClear USD-discounted products, including non-deliverable currencies and MXN, from Fed Funds to SOFR. The conversion is planned to take place starting on Friday 16 October 2020.

As part of the conversion process, LCH plans to provide ‘risk compensation’ in the form of Fed Funds vs SOFR basis swaps. The purpose of these compensating swaps is to reverse the change in discounting risk that will happen as a result of the update to the discounting curve, and to prevent any short-term distortions in market levels being permanently crystallised as cash in customer accounts.

Customer accounts will be able to opt out of the risk compensating swaps. All swaps that are opted out of by customers will be subject to a close-out process using auctions, to be run by LCH.

The rule changes specifically associated with the close out process will be updated from the original version self-certified¹. This is to address further feedback received regarding the design of the auctions. The main updates consist of refinements to the bidding process. Mid prices, which will be used to calculate cash compensation payments, will now be determined by a separate “Mid Price Auction”. Quotes for the main “Discounting Risk Auctions” will be one-way with auction participants (and the broader market) knowing the size and direction of the auction portfolio in advance. This design change is in order to facilitate the price discovery process. There is also a further drafting

¹ [LCH Limited Self-Certification: RFR PAI and discounting transition \(18 June 2020\)](#)

update which refines the description of the operational booking of the risk compensating swaps and other minor changes to address Member feedback.

Part II: Description of Rule Changes

The rule changes can be found in the SOFR Rate Change Annex in schedule 3 of the Procedures Section 2C. The primary changes are in the Cash Settlement Schedule component of the annex which sets out certain provisions relating to the how the Discounting Risk Auction, Mid-Price Auction and cash settlement process will work.

Equivalent changes have been made to the FCM Procedures in schedule 7. The cash settlement schedule is only included in Schedule 3 of Procedures Section 2C noted above as it covers both the SCM and FCM Service. This is noted in the definitions section of Schedule 7 in the FCM Procedures.

These rule changes will go live on, or after, 24 July 2020.

The text of the changes is attached hereto as:

- i. **Appendix I**, Procedures Section 2C (SwapClear)
- ii. **Appendix II**, FCM Procedures

Part III: Core Principle Compliance

LCH has reviewed the changes against the requirements of the Core Principles and finds it will continue to comply with all the requirements and standards therein.

Part IV: Public Information

LCH has posted a notice of pending certification with the CFTC and a copy of the submission on LCH's website at: <https://www.lch.com/resources/rules-and-regulations/proposed-rule-changes-0>.

Part V: Opposing Views

There were no opposing views expressed to LCH by governing board or committee members, members of LCH or market participants that were not incorporated into the rule. The approach has been designed around broad market participant consultation and bilateral feedback with ongoing regulatory engagement.

Certification

LCH hereby certifies to the Commodity Futures Trading Commission, pursuant to the procedures set forth in the Commission regulation § 40.6, that attached rule submission complies with the Commodity Exchange Act, as amended, and the regulations promulgated thereunder.

Should you have any questions please contact me at julian.oliver@lch.com.

Yours sincerely

A handwritten signature in blue ink, appearing to read "P.P. Oahadney", written over a light blue rectangular background.

Julian Oliver
Chief Compliance Officer
LCH Limited

Appendix I
Procedures Section 2C (SwapClear)



LCH LIMITED

PROCEDURES SECTION 2C

SWAPCLEAR CLEARING SERVICE

**SCHEDULE 3 - RATE CHANGE ANNEXES: SWAPCLEAR SCM SERVICE - RATE CHANGE
ANNEX – SECURED OVERNIGHT FINANCING RATE (SOFR)**

1.SCOPE AND INTERPRETATION

- (a) This Annex constitutes a “Rate Change Annex” as defined in and pursuant to the Regulations and supplements and forms part of the Rulebook.
- (b) This Annex relates to the change in the rate from the Fed Funds Rate to the Secured Overnight Financing Rate provided by the Federal Reserve Bank of New York, as administrator (or a successor administrator) (**SOFR**) for the purposes of (i) calculating PAI, (ii) calculating the Price Alignment Amount, and (iii) constituting the relevant underlying benchmark for the instruments used to construct the Clearing House’s zero coupon yield curves under 1.7.2 of Section 2C of the Procedures to calculate the net present value, each in relation to the Impacted SwapClear Contracts.
- (c) The terms of this Annex shall apply to all Impacted SwapClear Contracts (as set-out in the Rate Change Notice relating to SOFR) that are registered with the Clearing House as set out below. For the avoidance of doubt, (i) no other SwapClear Contract shall be subject to, or affected by, the terms of this Annex and each SwapClear Contract shall remain in full force and effect, and (ii) the SwapClear Contract Terms shall not be amended by the terms of this Annex.
- (d) Capitalized terms used but not otherwise defined in this Annex have the meaning given to them in the Regulations. The term "business day" has the meaning given to it in the Regulations.
- (e) The terms of this Annex relating to operational or procedural matters may be supplemented, modified, amended, replaced or withdrawn from time to time by the Clearing House in its sole discretion through a member circular or such other method as the Clearing House shall determine is appropriate.

2.DEFINITIONS

For the purposes of this Annex:

Auction Adjustment per Unit means, in relation to a Maturity Bucket, an amount in USD equal to (i) the aggregate of all Auction Winner Amounts for that Maturity Bucket divided by (ii) the total notional amount of Discounting Risk Swaps in that Maturity Bucket which have been liquidated pursuant to the Cash Settlement Schedule.

Auction Date means, in relation to a Rate Change Notice relating to SOFR, the date specified as such by the Clearing House in such Rate Change Notice, being the date on which the auctions referred to herein and the Cash Settlement Supplement shall be held and certain amounts payable hereunder shall be calculated.

Auction Winner means, in relation to the Net Auction Contract Pair in respect of a Maturity Bucket, each Cash Settlement Participant (as defined in the Cash Settlement Schedule) that has submitted the winning price for such Net Auction Contract Pair, as determined by the Clearing House in accordance with the Cash Settlement Supplement.

Auction Winner Amount means, in relation to the Net Auction Contract Pair for a Maturity Bucket and an Auction Winner, an amount in USD equal to the product of: (i) that Auction Winner's Winning Bid Quantity; (ii) the difference between that Auction Winner's Winning Bid Price and the Mid-Price; and (iii) the SOFR Basis Point

Cash Value per Million, each for that Maturity Bucket. If the Auction Winner's Winning Bid Price is a price that by reference to the Mid-Price is (a) in favor of the Clearing House, the Auction Winner Amount shall be a negative amount or (b) in favor of the Auction Winner, the Auction Winner Amount shall be a positive amount.

Cash Compensation Contract means each contract determined by the Clearing House and registered in the relevant Proprietary Account, Individual Segregated Account or "position account" within an Omnibus Segregated Account pursuant to Section 8 below.

Cash Only Client means a SwapClear Clearing Client that has its positions recorded in a Cash Only Client Position Account.

Cash Only Client Position Account means:

(i) each Individual Segregated Account registered in the name of a SwapClear Clearing Client that is identified as a Cash Only Client Position Account in a Cash Only Election Notice; and

(ii) each "position account" within an Omnibus Segregated Account that is identified as a Cash Only Client Position Account in a Cash Only Election Notice, provided that, each "position account" in a net Omnibus Segregated Account shall be a Cash Only Client Position Account if the Clearing House has received a Cash Only Election Notice in relation to at least one "position account" in such net Omnibus Segregated Account. The phrase Omnibus Segregated Account includes both a "net" Omnibus Segregated Account and a "gross" Omnibus Segregated Account.

Cash Only Client Position Account Auction Adjustment means, in relation to a Cash Only Client Position Account and a Maturity Bucket, an amount in USD in favor of the Clearing House or a SwapClear Clearing Member (as applicable) equal to the product of (i) the notional amount of Discounting Risk Swaps for that Maturity Bucket that would, but for the delivery of the Cash Only Election Notice, have been registered in that Cash Only Client Position Account and which have been liquidated pursuant to the Cash Settlement Schedule, and (ii) the Auction Adjustment per Unit for that Maturity Bucket.

Cash Only Election Cut-Off Date is the date specified as such by the Clearing House in a Rate Change Notice relating to SOFR, being the date by which SwapClear Clearing Members must deliver any Cash Only Election Notices to the Clearing House.

Cash Only Election Notice means a written notice delivered by a SwapClear Clearing Member to the Clearing House in accordance with this Annex identifying each Individual Segregated Account and/or each "position account" within each Omnibus Segregated Account held by that SwapClear Clearing Member in respect of which there has been an election to be treated as a Cash Only Client Position Account(s) in accordance with Section 4 of this Annex.

Cash Settlement Schedule means the schedule hereto which sets out the terms on which the Clearing House shall conduct one or more auctions for purposes of determining certain amounts, curves and spreads and related [concepts information](#) relevant to this Annex, as supplemented by any Cash Settlement Supplement published by the Clearing House from time to time. The Cash Settlement Schedule supplements, and forms part of, this Annex.

Cash Settlement Supplement means any document identified as such by the Clearing House which supplements and forms part of the Cash Settlement Schedule and sets out further terms in relation to the [auction auctions](#).

Cash Valuation Change Amount (MXN) means each amount denominated in MXN and determined in accordance with Section 7.5 of this Annex.

Cash Valuation Change Amount (USD) means each amount denominated in USD and determined in accordance with Section 7.1, Section 7.2 or Section 7.3 of this Annex.

De Minimis Participant Account means, in relation to a Maturity Bucket, any Proprietary Account, Individual Segregated Account, or "position account" within an Omnibus Segregated Account that, as of the Swap Portfolio Calculation Date, would have an allocation of Discounting Risk Swaps in a given Maturity Bucket with a notional amount that is closer to zero than to the integral number set out in the table in paragraph 5.1(c) in relation to that Maturity Bucket.

[Discounting Risk Auction has the meaning given to it in the Cash Settlement Schedule.](#)

Discounting Risk Swaps means the SwapClear Contracts determined, identified and notified by the Clearing House in accordance with Section 5 this Annex and entered into and registered between the Clearing House and a SwapClear Clearing Member pursuant to Regulation 60B.

FedFunds Discounted Value means, in relation to an Impacted SwapClear Contract, the net present value, as of the end of the "business day" in New York on the Auction Date, of all future cash flows under that Impacted SwapClear Contract calculated using the Fed Funds Rate as the discounting rate for the purposes of constructing the zero coupon yield curves under 1.7.2 of Section 2C of the Procedures (with the future cash flows calculated in the same manner as for the determination of the SOFR Discounted Value). If the net present value represents an asset or positive value for the Clearing House, such FedFunds Discounted Value shall be a positive amount and if the net present value represents a liability or negative value for the Clearing House, such FedFunds Discounted Value shall be a negative amount.

Maturity Bucket means, in relation to the Impacted SwapClear Contracts, Discounting Risk Swaps and Net Auction Contract Pairs, a group of such contracts which all have the same maturity, being either two years, five years, ten years, fifteen years, twenty years or thirty years from the date of registration.

Mid-Price has, in relation to the Net Auction Contract Pair for a Maturity Bucket, the meaning given to it in the Cash Settlement Schedule, and shall be expressed in basis points.

[Mid-Price Auction has the meaning given to it in the Cash Settlement Schedule.](#)

MXN Impacted SwapClear Contracts has the meaning given to it in Section 7 of this Annex.

Net Auction Contract Pair has the meaning given to it in the Cash Settlement Schedule.

SOFR Basis Point Cash Value per Million means, in relation to the Net Auction Contract Pair for a Maturity Bucket, an amount in USD equal to the change (expressed as a positive if a gain and a negative if a loss) in value of such Net Auction Contract Pair with a notional amount of USD one million as a result of adding a one basis point spread to the SOFR leg, as determined by the Clearing House in its sole discretion.

SOFR Discounted Value means, in relation to an Impacted SwapClear Contract, the net present value, as of the end of the "business day" in New York on the Auction Date, of all future cash flows under that Impacted SwapClear Contract using the SOFR Discounting Curve for the purposes of such calculation (with the future cash flows calculated in the same manner as for the determination of the FedFunds Discounted Value). If the net present value represents an asset or positive value for the Clearing House, such SOFR Discounted Value shall be a positive amount and if the net present value represents a liability or negative value for the Clearing House, such SOFR Discounted Value shall be a negative amount.

SOFR Discounting Curve means the SOFR pricing curve constructed by the Clearing House in accordance with Section 4 of the Cash Settlement Schedule.

Swap Portfolio Calculation Date means, in relation to a Rate Change Notice relating to SOFR, the date specified as such by the Clearing House in such Rate Change Notice relating to SOFR, being the date on which the Clearing House shall determine the portfolios of Discounting Risk Swaps in relation to all Impacted SwapClear Contracts registered with the Clearing House on such date.

Winning Bid Price means, in relation to the Net Auction Contract Pair for a Maturity Bucket and an Auction Winner, the price payable to, or by, that Auction Winner to the Clearing House, expressed as a positive or negative spread in basis points on the SOFR leg of the Net Auction Contract Pair for that Maturity Bucket and determined through a modified Dutch auction as further set-out in the Cash Settlement Supplement(s). For the avoidance of doubt: (a) if the Clearing House is the receiver of SOFR under the Net Auction Contract Pair, and (1) the spread is a positive amount, the Winning Bid Price shall be a positive amount; or (2) the spread is a negative amount, the Winning Bid Price shall be a negative amount; and (b) if the Clearing House is the receiver of the Fed Funds Rate under the Net Auction Contract Pair, and (1) the spread is a positive amount, the Winning Bid Price shall be a negative amount; or (2) the spread is a negative amount, the Winning Bid Price shall be a positive amount.

Winning Bid Quantity means, in relation to an Auction Winner and a Net Auction Contract Pair for a Maturity Bucket, the notional amount (expressed in units of USD one million) of the Discounting Risk Swap related to such Net Auction Contract Pair (or the part thereof) which will be determined by the Clearing House pursuant to the Cash Settlement Supplement and registered in the Proprietary Account of the Auction Winner.

3.OBLIGATIONS TO MAKE CERTAIN CALCULATIONS AND ENTER INTO CERTAIN CONTRACTS

(a) In connection with the change from the Fed Funds Rate to SOFR described in Section 1(b) above, pursuant to and in accordance with the Clearing House's powers under Regulation 60B of the Regulations, this Annex sets out the method by which the Clearing House will:

Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN) and Cash Compensation Contracts

(i) for each Proprietary Account, each Individual Segregated Account and each "position account" within each Omnibus Segregated Account, calculate the following amounts, in each case, if any:

(A) Cash Valuation Change Amount (USD); and

(B) Cash Valuation Change Amount (MXN),

each of which are "Rate Change Payments" for the purpose of Regulation 60B.

(ii) determine and register, pursuant to Regulation 60B, certain Cash Compensation Contracts in each Proprietary Account, Individual Segregated Account and each "position account" within each Omnibus Segregated Account in accordance with Section 8 of this Annex in order to effect the payment of each Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Auction Adjustment, and Auction Winner Amount, in each case, if any;

Discounting Risk Swaps and Auction Winner Amounts

- (iii) subject to (b) below, for (x) each Proprietary Account and (y) each Individual Segregated Account, and each "position account" within each Omnibus Segregated Account which is not a Cash Only Client Position Account, determine how certain Discounting Risk Swaps shall be identified in accordance with Section 5, registered and entered into between the Clearing House and each SwapClear Clearing Member pursuant to Regulation 60B and the terms of those Discounting Risk Swaps;
 - (iv) subject to (b) below, for each Cash Only Client Position Account, calculate the related Cash Only Client Position Account Auction Adjustments (which shall also each be a "Rate Change Payment" for the purpose of Regulation 60B); and
 - (v) for each Auction Winner, calculate the Auction Winner Amount (which shall also be a "Rate Change Payment" for the purpose of Regulation 60B).
- (b) Any account that is a De Minimis Participant Account in relation to a Maturity Bucket shall not have any Discounting Risk Swaps in that Maturity Bucket determined or registered in its name and shall not be obliged to pay, or entitled to receive, any Cash Only Client Position Account Auction Adjustments. Any Cash Only Election Notice received in relation to an Individual Segregated Account or "position account" within an Omnibus Segregated Account that is a De Minimis Participant Account as of the Auction Date shall be invalid and shall have no effect whatsoever (and, for the avoidance of doubt, the Discounting Risk Swaps that would otherwise be registered in any De Minimis Participant Account shall not count towards the Net Auction Contract Pair for any Maturity Bucket).

4. CLEARING MEMBER DEALINGS WITH CLIENTS AND CLIENT CASH ONLY ELECTIONS

Client Cash Only Elections

- (a) In relation to its SwapClear Client Clearing Business, a SwapClear Clearing Member shall provide each SwapClear Clearing Client with an election not to have Discounting Risk Swaps registered on that SwapClear Clearing Client's behalf in relation to Impacted SwapClear Contracts registered in the relevant Individual Segregated Account, or "position account" within the relevant Omnibus Segregated Account, and instead, subject to Section 4(d) below, to assume a right, or an obligation to pay or be paid an amount equal to the Cash Only Client Position Account Auction Adjustment in respect of the relevant Individual Segregated Account or "position account", as determined pursuant to this Annex (except in the circumstances provided for in the Cash Settlement Schedule, where the election not to have Discounting Risk Swaps registered may be overridden).
- (b) A SwapClear Clearing Member shall be entitled to deliver Cash Only Election Notices to the Clearing House at any time up to, and including, the Cash Only Election Cut-Off Date. All Cash Only Election Notices must be delivered to the Clearing House via the SwapClear Portal.
- (c) No SwapClear Clearing Member shall be entitled to deliver a Cash Only Election Notice in respect of its Proprietary Accounts and any such notice shall be invalid and shall have no effect whatsoever.
- (d) The Clearing House reserves the right to reject any Cash Only Election Notice received by the Clearing House after the end of the "business day" in New York on the Cash Only Election Cut-Off Date. A SwapClear Clearing Member shall only be entitled to deliver a Cash Only Election Notice in respect of all, but not some only, of the SwapClear Contracts registered in the name of a SwapClear Clearing Client in a single Individual Segregated Account or a single "position account" within an Omnibus Segregated Account. In relation to an Omnibus Segregated Account, the SwapClear Clearing Member shall be entitled to deliver

a separate Cash Only Election Notice in relation to each "position account" within that Omnibus Segregated Account, provided however that, in relation to a net Omnibus Account, if the SwapClear Clearing Member has delivered a Cash Only Election Notice in respect of any "position account", all "position accounts" therein shall be Cash Only Client Position Accounts.

- (e) The delivery by a SwapClear Clearing Member of a Cash Only Election Notice shall be deemed, as of the end of the "business day" in New York on the Cash Only Election Cut-Off Date, to be an irrevocable instruction of that SwapClear Clearing Member (for itself and acting on behalf of the relevant SwapClear Clearing Client(s) for whom the Individual Segregated Account or any "position account" within an Omnibus Segregated Account which such Cash Only Election Notice affects is held) to the Clearing House to determine the Cash Valuation Change Amount (USD), the Cash Valuation Change Amount (MXN) and each Cash Only Client Position Account Auction Adjustment in accordance with Section 7.3, Section 7.4 and Section 7.5 of this Annex and to register the related Cash Compensation Contracts in the relevant Individual Segregated Account or "position account" within an Omnibus Segregated Account in accordance with this Annex.
- (f) If a SwapClear Clearing Member does not deliver a Cash Only Election Notice in respect of an Individual Segregated Account or "position account" within an Omnibus Segregated Account held for a SwapClear Clearing Client then that shall be deemed, as of the end of the "business day" in New York on the Cash Only Election Cut-Off Date, to be an irrevocable instruction of that SwapClear Clearing Member (for itself and acting on behalf of that SwapClear Clearing Client) to the Clearing House to (i) determine the Cash Valuation Change Amount (USD) and the Cash Valuation Change Amount (MXN) in accordance with Section 7.2 and Section 7.5 of this Annex and to register the related Cash Compensation Contract in the relevant Individual Segregated Account or "position account" within an Omnibus Segregated Account in accordance with this Annex, and (ii) determine the Discounting Risk Swaps to be allocated to such Individual Account or "position account" within an Omnibus Segregated Account in accordance with this Annex and to register such Discounting Risk Swaps in such account.
- (g) By not delivering a Cash Only Election Notice, in relation to an Individual Segregated Account or "position account" within an Omnibus Segregated Account, each SwapClear Clearing Member represents and warrants to the Clearing House on the Cash Only Election Cut-Off Date that (i) it has used reasonable endeavors to obtain instructions from each SwapClear Clearing Client in relation to the exercise of an election not to receive Discounting Risk Swaps in relation to such account or "position account" and (ii) it has not received instructions from any SwapClear Clearing Client to deliver a Cash Only Election Notice in respect of such account or "position account".

Clearing Member Obligations

- (h) Each SwapClear Clearing Member (and in the case of (h)(vi) below, each SwapClear Clearing Member and the Clearing House):
 - (i) agrees to use reasonable endeavors to provide its SwapClear Clearing Clients with (i) information on the change in the rate from the Fed Funds Rate to SOFR pursuant to the terms of Regulation 60B and this Annex, (ii) information on the amounts payable pursuant to the terms of the Cash Compensation Contracts which may be registered in that SwapClear Clearing Client's Individual Segregated Account or "position account" within an Omnibus Segregated Account pursuant to the terms of this Annex, (iii) information on the Discounting Risk Swaps which may be allocated to that SwapClear Clearing Client's Individual Segregated Account or "position account" within an Omnibus Segregated Account pursuant to the terms of this Annex, and (iv) other information (indicative or otherwise) in relation to each SwapClear Clearing Client's "position account" [that](#)

the Clearing House has notified Clearing Members must be provided to SwapClear Clearing Clients. Such information shall include the terms of this Annex and any information which it has received from, or is made available by, the Clearing House in connection with this Annex, including any risk disclosure statements relating to the matters herein;

- (ii) agrees that it, and each applicable SwapClear Clearing Client, shall be bound by the terms of any Cash Compensation Contracts and Discounting Risk Swaps registered pursuant to this Annex and all payment obligations thereunder (as determined by the Clearing House pursuant to this Annex);
- (iii) represents and warrants to the Clearing House as at the Cash Only Election Cut-off Date that each Cash Only Client in relation to which it has delivered a Cash Only Election Notice (A) has instructed the SwapClear Clearing Member to deliver the Cash Only Election Notice on its behalf, and (B) has expressly agreed (i) that by electing for its Individual Segregated Account or "position account" within an Omnibus Segregated Account to be a Cash Only Client Position Account under this Annex it shall not, other than if (X) the Cash Settlement Schedule provides that one or more ~~auctions~~ Discounting Risk Auctions have failed, or (Y) some of the Discounting Risk Swaps are not successfully auctioned and liquidated in accordance with the Cash Settlement Schedule, be party to any Discounting Risk Swaps (ii) that it shall be obliged to pay or entitled to receive the Cash Valuation Change Amount (USD), the Cash Valuation Change Amount (MXN) and, provided the Cash Only Client Position Account is not a De Minimis Participant Account, each Cash Only Client Position Account Auction Adjustment determined in accordance with Section 7.3, Section 7.4 and Section 7.5 of this Annex, and (iii) that the Cash Only Client Position Account Auction Adjustment may not be economically equivalent to being party to any such Discounting Risk Swaps or liquidating, closing-out, selling or replacing the Discounting Risk Swaps in the relevant market;
- (iv) acknowledges that the Cash Valuation Change Amounts, the Auction Winner Amounts, each Cash Only Client Position Account Auction Adjustment, and the spread ~~on~~ in relation to the ~~SOFR leg of the~~ Discounting Risk Swaps shall be determined by reference to the ~~auction~~ Discounting Risk Auctions and the Mid-Price Auctions, and agrees to be bound by the results of such ~~auction~~ auctions and the terms of the Cash Settlement Schedule and the Cash Settlement Supplement;
- (v) agrees to perform all obligations and exercise all rights under this Annex, the Cash Settlement Schedule, the Cash Settlement Supplement, the Cash Compensation Contracts and the Discounting Risk Swaps in accordance with Applicable Law; and
- (vi) agrees (in the case of the Clearing House) and acknowledges (in the case of the SwapClear Clearing Member) that each Cash Compensation Contract and Discounting Risk Swap is being registered in the relevant account in connection with the matters specified in this Annex and the obligations thereunder are for the sole purpose of addressing the value and discounting risk impact of the change from the Fed Funds Rate to SOFR and effecting the payment of amounts owed to, or payable by, the Auction Winner.

5.DETERMINING THE PORTFOLIO OF DISCOUNTING RISK SWAPS

5.1 On the Swap Portfolio Calculation Date, the Clearing House shall allocate Impacted SwapClear Contracts into different Maturity Buckets based on the tenor of the discounting risk associated with such Impacted SwapClear Contracts. Any Impacted SwapClear Contract that has discounting risk with a tenor that falls between two different Maturity Buckets shall be allocated to the nearest two Maturity Buckets in the

Clearing House's sole and absolute discretion. Separately in respect of the Impacted SwapClear Contracts allocated to each Maturity Bucket in each Proprietary Account, Individual Segregated Account and "position account" within each Omnibus Segregated Account, the Clearing House shall determine a portfolio of Discounting Risk Swaps which is designed to, in the Clearing House's sole and absolute discretion and to the extent practicable, replicate the Fed Funds Rate discounting risk profile in relation to such SwapClear Contracts as of the Swap Portfolio Calculation Date. For the avoidance of doubt, the determination by the Clearing House pursuant to this paragraph may be different from a SwapClear Clearing Member's or SwapClear Clearing Client's models or methodologies. Each pair of Discounting Risk Swaps will:

- (a) have a maturity of two years, five years, ten years, fifteen years, twenty years or thirty years from the date of registration;
- (b) when registered, comprise a pair of SwapClear Contracts whereby:
 - (i) under the first SwapClear Contract, the Clearing House or the SwapClear Clearing Member (**Party X**) will receive ~~SOFR plus or minus a spread which shall be equal to the relevant Mid-Price determined pursuant to the Cash Settlement Schedule~~ Fed Funds and pay to the other party (**Party Y**) ~~a fixed rate; and~~ fixed amounts, which shall be determined by reference to the fixed rate, determined by the Clearing House in accordance with its usual processes, that would be payable on the fixed leg of a SwapClear Contract at the close of business on the Swap Portfolio Calculation Date where the floating rate is the Fed Funds Rate and the maturity date corresponds to the applicable maturity referred to in (a) above; and
 - (ii) under the second SwapClear Contract, Party X will ~~receive the same fixed rate as~~ pay SOFR and receive from Party Y a fixed amount, which shall be a fixed rate, determined by subtracting the spread equal to the ~~Mid-Price determined pursuant to the Cash Settlement Schedule~~ from the fixed rate referred to in (i) ~~immediately above and pay to Party Y the Fed Funds Rate with no spread, and~~ above, provided that if the process referred to in the Cash Settlement Schedule fails to provide the Mid-Price for the relevant Maturity Bucket, the Clearing House shall determine the spread for that Maturity Bucket using its customary methodology and applying it to observable market data points and applying linear interpolation where the Clearing House considers appropriate; and
- (c) have a notional amount that is determined by the Clearing House, in its sole and absolute discretion, where such notional amount shall be rounded to the nearest integral number set out in the following table:

Maturity Bucket	2Y	5Y	10Y	15Y	20Y	30Y
Amount in USD to which the notional amount will be rounded to	5,000,000	2,500,000	1,250,000	500,000	500,000	500,000

5.2 The Clearing House shall separately determine the portfolio of Discounting Risk Swaps in respect of each of the following (excluding, in relation to a Maturity Bucket, any De Minimis Participant Accounts in relation to that Maturity Bucket) as of the Swap Portfolio Calculation Date:

- (a) the Impacted SwapClear Contracts then registered in each SwapClear Clearing Member's Proprietary Account;
- (b) the Impacted SwapClear Contracts then registered in each Individual Segregated Account held for any SwapClear Clearing Client; and
- (c) the Impacted SwapClear Contracts then registered in a "position account" in the name of each SwapClear Clearing Client within each Omnibus Segregated Account

5.3 The Clearing House shall promptly notify each SwapClear Clearing Member of each portfolio of Discounting Risk Swaps it has determined pursuant to this Section 5 in respect of each account or "position account" held by each SwapClear Clearing Member as set out above.

5.4 Without prejudice to the above, at any time prior to the Swap Portfolio Calculation Date, the Clearing House may publish indicative portfolios of the Discounting Risk Swaps in relation to the Impacted SwapClear Contracts then registered in the name of a SwapClear Clearing Member for information only.

6. THE ~~AUCTION~~ AUCTIONS

6.1 On the Auction Date the Clearing House shall conduct one or more ~~auctions~~ [Discounting Risk Auctions and Mid-Price Auctions](#) and each such auction shall be conducted ~~shall apply to~~ in respect of both LCH's SCM service and LCH's FCM service. The initial terms of the ~~auctions~~ [Discounting Risk Auctions and the Mid-Price Auctions](#) shall be as set out in the Cash Settlement Schedule and the Clearing House shall supplement such terms to provide further detail on the operation of the auctions through publication of one or more Cash Settlement Supplements, provided however that, the Clearing House shall not be entitled to materially alter the nature of the obligations of any SwapClear Clearing Member under this Rate Change Annex via any Cash Settlement Supplement. Each Cash Settlement Supplement shall be deemed to supplement, and form part of, the Cash Settlement Schedule and the Clearing House shall be entitled to supplement, modify, amend, replace or withdraw the Cash Settlement Schedule or Cash Settlement Supplements (in whole or in part) from time to time in its sole discretion through such method as the Clearing House shall determine is appropriate.

6.2 Each SwapClear Clearing Member that is an Expected Cash Settlement Participant (as defined in the Cash Settlement Schedule) agrees that it shall use all reasonable efforts to submit pricing in accordance with ~~this~~ the Cash Settlement Schedule for the Net Auction Contract Pair in each Maturity Bucket.

7. THE CASH VALUATION CHANGE AMOUNTS AND THE CASH ONLY CLIENT POSITION ACCOUNT AUCTION ADJUSTMENTS

All Impacted SwapClear Contracts other than TIE Interest Rate Swaps denominated in MXN

The following provisions are applicable in relation to all Impacted SwapClear Contracts other than Impacted SwapClear Contracts that are TIE interest rate swaps denominated in MXN. With respect to the calculations to be performed under Section 7.1 to 7.3 (inclusive) below, for the purposes of determining the Cash Valuation Change Amount (USD) in relation to non-deliverable interest rate swaps the Clearing House shall first convert into USD the value of the discounted future cash flows which are

not denominated in USD by applying the relevant rate of exchange as determined by the Clearing House in accordance with its usual procedures. Each of the calculations performed under Sections 7.1 to 7.3 (inclusive) below shall include any non-deliverable interest rate swaps registered in the relevant account or "position account" as of the end of the "business day" in New York on the Auction Date.

Proprietary Accounts

7.1 Immediately following the conclusion of the ~~auction~~ [Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auction~~ [such auctions](#) shall not occur) on the Auction Date, the Clearing House shall calculate the Cash Valuation Change Amount (USD) in respect of each Proprietary Account as follows:

- (a) the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to each Impacted SwapClear Contract registered in each Proprietary Account as of the end of the "business day" in New York on the Auction Date;
- (b) if the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in a Proprietary Account exceeds the aggregate FedFunds Discounted Value in relation to all such Impacted SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the Clearing House in relation to such Proprietary Account; and
- (c) if the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in a Proprietary Account is less than the aggregate FedFunds Discounted Value in relation to all such Impacted SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the SwapClear Clearing Member in relation to such Proprietary Account.

Client Accounts (excluding Cash Only Client Position Accounts)

7.2 The following only applies in relation to each Individual Segregated Account or "position account" within each Omnibus Segregated Account that is not a Cash Only Client Position Account. Immediately following the conclusion of the ~~auction~~ [Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auction~~ [such auctions](#) shall not occur) on the Auction Date the Clearing House shall determine the Cash Valuation Change Amount (USD) in respect of the Impacted SwapClear Contracts registered in each Individual Segregated Account or "position account" within each Omnibus Segregated Account that is not a Cash Only Client Position Account as follows:

- (a) the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in such account as of the end of the "business day" in New York on the Auction Date;
- (b) if the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in such account exceeds the aggregate FedFunds Discounted Value in relation to all such Impacted SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the excess and shall be an amount in favor of the Clearing House in relation to such account; and
- (c) if the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in such account is less than the aggregate FedFunds Discounted Value in relation to all such

Impacted SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the SwapClear Clearing Member in relation to such account.

Cash Only Client Position Accounts

7.3 The following applies only in relation to Cash Only Client Position Accounts. Immediately following the conclusion of the ~~auetion~~Discounting Risk Auctions (or determination by the Clearing House that ~~the auetion~~such auctions shall not occur) on the Auction Date the Clearing House shall determine the Cash Valuation Change Amount (USD) in respect of the Impacted SwapClear Contracts registered in a Cash Only Client Position Account as follows:

- (a) the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in such account as of the end of the "business day" in New York on the Auction Date;
- (b) if the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in such account exceeds the aggregate FedFunds Discounted Value in relation to all such Impacted SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the Clearing House in relation to such account;
- (c) if the aggregate SOFR Discounted Value in relation to all Impacted SwapClear Contracts registered in such account is less than the aggregate FedFunds Discounted Value in relation to all such Impacted SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the SwapClear Clearing Member in whose name such Cash Only Client Position Account is held; and

7.4 Immediately following the conclusion of the ~~auetion~~Discounting Risk Auctions on the Auction Date, provided that the ~~auetion~~Discounting Risk Auction for the relevant Maturity ~~Buckets~~Bucket occurs in accordance with the Cash Settlement Schedule, the Clearing House shall calculate, in respect of each Cash Only Client Position Account the aggregate Cash Only Client Position Account Auction Adjustment in relation to each Maturity Bucket.

Impacted SwapClear Contracts which are TIE Interest Rate Swaps denominated in MXN

7.5 Immediately following the conclusion of the ~~auetion~~Discounting Risk Auctions (or determination by the Clearing House that ~~the auetion~~such auctions shall not occur) on the Auction Date the Clearing House shall determine the Cash Valuation Change Amount (MXN) separately in respect of each Impacted SwapClear Contracts that is a TIE interest rate swap denominated in MXN (**MXN Impacted SwapClear Contracts**) registered in each Proprietary Account, Individual Segregated Account and "position account" within an Omnibus Segregated Account, as follows:

- (a) first, for the purposes of determining the Cash Valuation Change Amount (MXN) in relation to the MXN Impacted SwapClear Contracts, the value of the discounted future cash flows thereunder shall be multiplied by the relevant USD/MXN rates of exchange determined by the Clearing House in accordance with the Clearing House's usual procedures;

- (b) second, the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to all MXN Impacted SwapClear Contracts registered in such account as of the end of the "business day" in New York on the Auction Date;
- (c) if the aggregate SOFR Discounted Value in relation to all such MXN Impacted SwapClear Contracts registered in such account exceeds the aggregate FedFunds Discounted Value in relation to all such MXN Impacted SwapClear Contracts then the Cash Valuation Change Amount (MXN) shall be an amount in MXN equal to the absolute value of the difference and shall be an amount in favor of the Clearing House in relation to such account; and
- (d) if the aggregate SOFR Discounted Value in relation to all MXN Impacted SwapClear Contracts registered in such account is less than the aggregate FedFunds Discounted Value in relation to all such MXN Impacted SwapClear Contracts then the Cash Valuation Change Amount (MXN) shall be an amount in MXN equal to the absolute value of the difference and shall be an amount in favor of the SwapClear Clearing Member in whose name such Cash Only Client Position Account is held.

8. REGISTRATION OF CASH COMPENSATION CONTRACTS

- 8.1 On the basis of the calculations set forth in Section 7 above, the Clearing House shall determine, as applicable, the Cash Valuation Change Amount (USD), the Cash Valuation Change Amount (MXN), the Cash Only Client Position Account Auction Adjustments and the Auction Winner Amount in respect of each Proprietary Account, each Individual Segregated Account and each "position account" within an Omnibus Segregated Account and each SwapClear Clearing Member and the Clearing House (as applicable) irrevocably agrees that it shall be bound to pay such amounts to the other pursuant to the terms of the related Cash Compensation Contracts.
- 8.2 The Clearing House shall, pursuant to Regulation 60B, register a separate Cash Compensation Contract in each Proprietary Account, each Individual Segregated Account and each "position account" within an Omnibus Segregated Account in relation to each of the following amounts (to the extent such amounts are applicable to such account or "position account"):
 - (a) Cash Valuation Change Amounts (USD);
 - (b) Cash Valuation Change Amounts (MXN);
 - (c) Cash Only Client Position Account Auction Adjustments; and
 - (d) Auction Winner Amounts.
- 8.3 Each Cash Compensation Contract shall be registered for the sole purpose of effecting the payment of the Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Account Auction Adjustments or Auction Winner Amount (as applicable) to which it relates. It shall operationally be recorded as having a "Notional Amount" (as defined in the SwapClear Contract Terms) of USD1 (or, in the case of the Cash Compensation Swap relating to the Cash Valuation Change Amount (MXN), MXN1), a "Termination Date" (as defined in the SwapClear Contract Terms) falling two "business days" after the Auction Date, and an obligation on the Clearing House or the SwapClear Clearing Member (as applicable) to pay to the other an amount equal to the Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Account Auction Adjustments or Auction Winner Amount (as applicable) in relation to the relevant account or "position account", with

such amounts determined in accordance with Section 7 of this Annex. However, neither the Clearing House nor a SwapClear Clearing Member shall be required to pay any amounts under a Cash Compensation Contract other than the Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Account Auction Adjustment or Auction Winner Amount (as applicable) to which such Cash Compensation Contract relates.

8.4 Each SwapClear Clearing Member agrees to be bound by each Cash Compensation Contract registered pursuant to this Section 8, which shall, when registered, constitute a SwapClear Contract between the Clearing House and the relevant SwapClear Clearing Member that has arisen by reason of the application of the Regulations to the Impacted SwapClear Contracts.

9. REGISTRATION OF DISCOUNTING RISK SWAPS

9.1 Immediately following the conclusion of the ~~auction~~ [Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auction~~ [such auctions](#) shall not occur) on the Auction Date the Clearing House shall notify all SwapClear Clearing Members of the Discounting Risk Swaps that will be registered in the accounts in accordance with this Annex. If the Clearing House exercises its powers pursuant to Section 4(b) of the Cash Settlement Schedule, then, as soon as practicable following such exercise, it shall notify all SwapClear Clearing Members of the Discounting Risk Swaps that will be registered in their Proprietary Accounts, Individual Segregated Accounts and "position accounts" within each Omnibus Segregated Account and it shall register such Discounting Risk Swaps in such accounts without regard to any Cash Only Election Notice.

9.2 Except as provided in Section 9.3 below, on the first "business day" immediately following the Auction Date the Clearing House shall:

- (a) in relation to each Auction Winner, register the related Discounting Risk Swaps (or portion thereof) in the Proprietary Account of the Auction Winner and each Auction Winner and the Clearing House shall become party to such Discounting Risk Swaps;
- (b) in relation to each Proprietary Account other than De Minimis Participant Accounts, register the Discounting Risk Swaps determined pursuant to Section 5.2(a) in each SwapClear Clearing Member's Proprietary Account; and
- (c) in relation to each Individual Segregated Account and "position account" within each Omnibus Segregated Account other than Cash Only Client Position Accounts and De Minimis Participant Accounts, register the Discounting Risk Swaps determined pursuant to Section 5.2(b), and (c) in relation to such SwapClear Clearing Client in the relevant account.

9.3 Each SwapClear Clearing Member agrees to be bound by each Discounting Risk Swap registered pursuant to this Section 9, which shall, when registered, constitute SwapClear Contracts between the Clearing House and the relevant SwapClear Clearing Member that have arisen by reason of the application of the Regulations to the Impacted SwapClear Contracts.

10. DETERMINATIONS BINDING

Subject to Section 13, all determinations and calculations made by the Clearing House pursuant to this Annex and the Cash Settlement Schedule shall be binding and may in no circumstances (other than in the case of manifest error) be called into question by any person.

11.RECORDS

The Clearing House shall update its books and records to reflect the Discounting Risk Swaps, Cash Compensation Contracts, Cash Valuation Change Amounts (USD), Cash Valuation Change Amounts (MXN), Auction Winner Amounts and Cash Only Client Position Account Auction Adjustments resulting from the operation of this Annex and the Cash Settlement Schedule. The obligation to pay, or the right to receive, any amounts determined under this Annex may be reflected in the books and records of the Clearing House in such manner as the Clearing House determines is necessary to meet its operational requirements.

12.MISCELLANEOUS

- (a)The obligations of the Clearing House to each SwapClear Clearing Member shall be to perform its obligations as principal to such SwapClear Clearing Member in accordance with the Rulebook, but subject to the restrictions on the Clearing House's obligations and liabilities contained in the Rulebook and Section 13.
- (b)The terms of this Annex are without prejudice to the Clearing House's rights under the Procedures to change the rate used for the purposes of (i) calculating PAI, (ii) calculating the Price Alignment Amount, and (iii) constructing the Clearing House's zero coupon yield curves under 1.7.2 of Section 2C of the Procedures from time to time and such terms shall not be relevant or binding on the Clearing House in respect of any such changes.
- (c)The performance by the Clearing House of its obligations hereunder shall always be subject to the provisions of the Rulebook. The benefit of the performance by the Clearing House of its obligations under this Annex is conferred upon SwapClear Clearing Members only, as principal, and a person who is not a party to the Rulebook has no right under Contracts (Rights of Third Parties) Act 1999 (as amended from time to time) to enforce any term of this Annex.

13.LIMITATION OF LIABILITY

13.1 Without prejudice to the generality of Regulation 52, each SwapClear Clearing Member agrees:

- (a)that neither the Clearing House nor any other member of the LCH Group will have any liability whatsoever to any SwapClear Clearing Member or any other person (including, without limitation, any SwapClear Clearing Client) whether in contract, tort (including, without limitation, negligence), trust, as a fiduciary or under any other cause of action, and whether in respect of any damages, loss or gain, cost or expense (whether direct, indirect, general, special, consequential, punitive or otherwise); and
- (b)to waive any claim against the Clearing House or any member of the LCH Group;
arising or that may arise in connection with:
 - (i)any determination, calculation, notification, registration, publication, exercise of discretion, or decision, taken or not taken by the Clearing House or any other member of the LCH Group in connection with this Annex; or
 - (ii)the determination or publication of any price, curve, data, quote or other information arising from, or in connection with, this Annex;

except in the case of fraud or wilful misconduct on the part of the Clearing House or any other member of the LCH Group.

13.2 Without prejudice to the generality of Regulation 52 and clause 14.1 above, each SwapClear Clearing Member further agrees:

(a) that neither the Clearing House nor any other member of the LCH Group will have any liability whatsoever to any SwapClear Clearing Member or any other person (including, without limitation, any SwapClear Clearing Client) in tort (including, without limitation, negligence), trust, as a fiduciary or under any other non-contractual cause of action, or under any implied contractual term, and whether in respect of any damages, loss or gain, cost or expense (whether direct, indirect, general, special, consequential, punitive or otherwise); and

(b) to waive any non-contractual claim or claim under any implied contractual term against the Clearing House or any member of the LCH Group;

arising or that may arise in connection with the Clearing House's performance of its contractual duties or obligations under this Annex, except in the case of fraud or wilful misconduct on the part of the Clearing House or any other member of the LCH Group.

13.3 Each SwapClear Clearing Member agrees that neither the Clearing House nor any other member of the LCH Group (i) owes any duty of care to any person in connection with the performance of the Clearing House's duties or obligations or exercise of its rights under this Annex, save for the express contractual duties set forth in this Annex; (ii) is under any obligation to research, investigate, supplement, or verify the veracity of, any price, data, quote or other information received from a SwapClear Clearing Member in connection with this Annex; (iii) is acting as a fiduciary for, or as an advisor to, any SwapClear Clearing Member or SwapClear Clearing Client in connection with this Annex or any SwapClear Contract registered as a result of the matters specified in this Annex; (iv) shall be under any requirement to consult with, or individually notify (other than as expressly set out in this Annex), a SwapClear Clearing Member or SwapClear Clearing Client in connection with making its determinations, exercising its discretions or performing its duties or obligations or exercising its rights, each under this Annex; or (v) has made any representation, express or implied, in relation to this Annex, and each SwapClear Clearing Member acknowledges that it has not relied on any representations made by the Clearing House or any other member of the LCH Group in relation to this Annex.

13.4 For the avoidance of doubt, notwithstanding anything herein or in the Cash Settlement Supplement or Cash Settlement Schedule, neither the Clearing House nor any other member of the LCH Group shall be liable for any obligations of, or to any person who is not, a SwapClear Clearing Member.

CASH SETTLEMENT SCHEDULE

This Cash Settlement Schedule sets forth certain provisions relating to the ~~auetion and~~[Discounting Risk Auctions and Mid-Price Auctions and the](#) cash settlement process in relation to both the SOFR Rate Change Annex for the SCM service and the SOFR Rate Change Annex for the FCM Service and may be supplemented from time to time by one or more Cash Settlement Supplements.

1. AUCTIONED CONTRACTS

The Clearing House shall determine a single Net Auction Contract Pair (as defined below) separately for each Maturity Bucket as follows:

- (a) first, the Clearing House shall determine the portfolio of Discounting Risk Swaps for each Maturity Bucket that would, but for the Cash Only Election Notices, have been registered in each of the Cash Only Client Position Accounts in accordance with the SOFR Rate Change Annex for the SCM service and the SOFR Rate Change Annex for the FCM service; and
- (b) second, the Clearing House shall aggregate and net all of the risks and cash flows for the above Discounting Risk Swaps for each Maturity Bucket to determine a single pair of Discounting Risk Swaps for each Maturity Bucket, and each such pair of Discounting Risk Swaps shall be the **Net Auction Contract Pair** for that Maturity Bucket.

Each Net Auction Contract Pair shall comprise (i) a Discounting Risk Swap pursuant to which, the Clearing House or [the](#) SwapClear Clearing Member (**Party X**) will receive ~~SOFR plus or minus a spread which shall be equal to the relevant Mid-Price determined pursuant to this Cash Settlement Schedule~~[Fed Funds](#) and pay to the other [party](#) (**Party Y**) ~~a fixed rate~~[fixed amounts, which shall be determined by reference to the fixed rate, determined by the Clearing House in accordance with its usual processes, that would be payable on the fixed leg of a SwapClear Contract at the close of business on the Swap Portfolio Calculation Date where the floating rate is the Fed Funds Rate and the maturity date corresponds to the relevant Maturity Bucket,](#) and (ii) a Discounting Risk Swap pursuant to which, Party X will ~~receive the same fixed rate as referred to in (i) immediately above and pay to Party Y the Fed Funds Rate with no spread.~~[pay SOFR and receive from Party Y a fixed amount, which shall be a fixed rate, determined by subtracting the spread equal to the Mid-Price determined pursuant to this Cash Settlement Schedule from the fixed rate referred to in \(a\) above, provided that if the process referred to in this Cash Settlement Schedule fails to provide the Mid-Price for the relevant Maturity Bucket, the Clearing House shall determine the spread for that Maturity Bucket using its customary methodology and applying it to observable market data points and applying linear interpolation where the Clearing House considers appropriate.](#)

For the avoidance of doubt, the above determinations are made solely for the purposes of determining the Net Discounting Risk Swaps that shall be subject to the ~~auetion~~[Discounting Risk Auctions](#) and, prior to the registration of the Discounting Risk Swaps resulting from the from the ~~auetion~~[Discounting Risk Auctions](#), no SwapClear Contracts shall be registered in any SwapClear Clearing Member's accounts.

For these purposes:

Cash Settlement Participants means those SwapClear Clearing Members and FCM Clearing Members (if any) who have notified the Clearing House via the SwapClear Portal by the cut-off time specified by the Clearing House in the Rate Change Notice related to SOFR that they shall participate in the ~~auetion~~[Discounting Risk Auctions and Mid-Price Auctions](#). For the avoidance of doubt, only one SwapClear Clearing Member per group of affiliated

SwapClear Clearing Members shall be entitled to submit ~~a bid~~ pricing and such SwapClear Clearing Member shall be bound by the terms of such ~~bid~~ pricing and the terms of this Cash Settlement Schedule, the Cash Settlement Supplement and the applicable Rate Change Annex for SOFR.

Discounting Risk Auction means each auction that is not a Mid-Price Auction and that is held by the Clearing House for the purposes of liquidating certain Discounting Risk Swaps described in Section 1 of this Schedule and determining certain spreads, curves, amounts and related information.

Expected Cash Settlement Participant means each SwapClear Clearing Member and FCM Clearing Member (if any) that belongs to a group which, during January, February and March 2020, had more than USD1 trillion in gross notional amount of new SwapClear Contracts and/or FCM SwapClear Contracts that are Impacted SwapClear Contracts or Impacted FCM SwapClear Contracts registered in the Proprietary Accounts of all SwapClear Clearing Members or FCM Clearing Members in that group.

Mid-Price Auction means each auction that is not a Discounting Risk Auction and that is held by the Clearing House for the purpose of determining the Mid-Price in relation to a Maturity Bucket pursuant to Section 3 of this Schedule.

2.PRICE SUBMISSIONS

- (a) The manner in which each Cash Settlement Participant must submit pricing in relation to each Discounting Risk Auction and each Mid-Price Auction shall be further set out by the Clearing House in a Cash Settlement Supplement.
- (b) Each time a Cash Settlement Participant submits pricing in relation to a Discounting Risk Auction or a Mid-Price Auction (as applicable) it shall be deemed to represent and warrant that it has all necessary internal approvals and risk permissions in place to submit such pricing, and pay any amounts and be bound to any Crossed Mid-Price Setting Transactions (as defined below) in connection with such Mid-Price Auction and any SwapClear Contracts and/or SwapClear FCM Contracts registered in its Proprietary Account in connection with ~~the auction~~ such Discounting Risk Auction.
- (c) Each price submitted by a Cash Settlement Participant in connection with a Discounting Risk Auction constitutes an offer to the Clearing House to enter into the Net Auction Contract Pair related to that Discounting Risk Auction and shall be treated for all purposes as an irrevocable firm, executable price. Each price submitted by a Cash Settlement Participant in connection with a Mid-Price Auction constitutes an offer to the other Cash Settlement Participants to enter into a Mid-Price Setting Transaction (as defined below) related to that Mid-Price Auction and shall be treated for all purposes as an irrevocable firm, executable price.
- (d) Subject to paragraph (e) below, the Clearing House may only reject a bid or offer submitted in a Discounting Risk Auction or Mid-Price Auction if it considers, in its sole and absolute discretion, that such bid or offer has been submitted as a result of a manifest error. If the Clearing House makes such a determination it shall first contact the Cash Settlement Participant who submitted such pricing and provide such Cash Settlement Participant with the opportunity to withdraw and/or correct such manifest error before the ~~auction~~ relevant Discounting Risk Auction or Mid-Price Auction (as applicable) is concluded. If such pricing is not corrected or withdrawn the Clearing House shall disregard such pricing for all purposes.
- (e) For the purposes of ~~all determinations other than the determination of the Mid-Price~~ the Discounting Risk Auctions, the Clearing House shall not take into account any bid or offer that is submitted for a Maturity Bucket if the number of basis points between such bid or offer, on the one hand, and the Mid-Price, on the

other hand, is greater than the Bid/Offer Limit for that Maturity Bucket. The **Bid/Offer Limit** shall be expressed as a number of basis points and shall be ~~as set out in the Cash Settlement Supplement~~ published by the Clearing House prior to the Auction Date. The Bid/Offer Limit shall be within a range published by the Clearing House prior to the Cash Only Election Cut-Off Date.

3.DETERMINING THE MID-PRICE AND CONSTRUCTING THE SOFR PRICING CURVE

(a) For the purpose of determining the Mid-Price in relation to a Maturity Bucket, on the Auction Date and prior to the commencement of the Discounting Risk Auctions, the Clearing House shall require, and each Cash Settlement Participant shall, in respect of each Maturity Bucket provide to the Clearing House, two-way pricing (bids and offers) to enter into a Fed Funds Rate – SOFR basis swap with a maturity equal to the maturity for that Maturity Bucket and a notional amount to be determined by the Clearing House in its sole and absolute discretion and notified to the Cash Settlement Participants on, or prior to, the Auction Date (the "Mid-Price Setting Transaction"). For the avoidance of doubt, no Discounting Risk Swaps or Net Auction Contract Pairs in relation to a Maturity Bucket shall be auctioned, liquidated or sold pursuant to this process and no SwapClear Contract or FCM SwapClear Contract shall be registered as a direct result of any prices submitted by a Cash Settlement Participant pursuant to this Section 3.

(b) Each SwapClear Clearing Member that is an Expected Cash Settlement Participant agrees that it shall use all reasonable efforts to submit pricing in accordance with this Cash Settlement Schedule for the Mid-Price Setting Transaction in each Maturity Bucket.

(ac) Solely for the purposes of determining the Mid-Price in relation to ~~each~~ a Maturity Bucket the Clearing House shall take the following steps separately in relation to all bids and offers submitted for ~~each~~ the Mid-Price Setting Transaction for that Maturity Bucket:

- (i) first, it shall order the bid prices in descending order (i.e. starting with the highest bid) and order the offer prices in ascending order (i.e. starting with the lowest offer);
- (ii) second, it shall remove any crossing bids and offers (i.e. if any ranked, ordered, individual bid price exceeds any ranked, ordered, individual offer price (a "Crossed Bid" and a "Crossed Offer", respectively) both such bid and offer prices shall be removed);
- (iii) third, it shall determine the top quartile of the bid prices and the top quartile of the offer prices (rounding up to determine a quarter) and remove the remaining bid and offer prices;
- (iv) fourth, it shall calculate the average of the remaining bid prices and the average of the remaining offer prices; and
- (v) fifth, it shall sum the averages determined under step (iv) and divide the result by two, and the result shall be the "Mid-Price" for that Maturity Bucket.

~~For the avoidance of doubt, the above steps shall not apply to determine the identity of the Auction Winner and shall only be applicable to determine the Mid-Price in relation to each Maturity Bucket.~~

If the process referred to immediately above fails to provide the Mid-Price for the relevant Maturity Bucket, the Clearing House shall determine the Mid-Price for that Maturity Bucket using its customary methodology and applying it to observable market data points and applying linear interpolation where the Clearing House considers appropriate, and this shall be the "Mid-Price" for that Maturity Bucket. For the avoidance of doubt, the above steps shall not apply to determine the identity of the Auction Winner in

relation to a Maturity Bucket and shall only be applicable to determine the Mid-Price in relation to that Maturity Bucket.

(bd) Once the above steps have been completed, the Clearing House shall construct a SOFR curve by (i) in relation to tenors for which there is a corresponding Maturity Bucket, adding each Mid-Price calculated with respect to ~~at~~ that Maturity Bucket in accordance with the foregoing methodology to the corresponding tenor on the Clearing House's zero coupon yield curve for the Fed Funds Rate as of the Auction Date, and (ii) in relation to tenors for which there is not a corresponding Maturity Bucket (or for which the process referred to in this Section 3 fails to provide the Mid-Price), using observable market data points and applying linear interpolation where the Clearing House considers appropriate.

(e) On the Auction Date the Clearing House shall notify each Cash Settlement Participant that has submitted a Crossed Bid or Crossed Offer. A Cash Settlement Participant that has submitted a Crossed Bid shall be obliged to enter into a Mid-Price Setting Transaction with another Cash Settlement Participant that has submitted a Crossed Offer and a Cash Settlement Participant that has submitted a Crossed Offer shall be obliged to enter into a Mid-Price Setting Transaction with another Cash Settlement Participant that has submitted a Crossed Bid (each, a "Crossed Mid-Price Setting Transaction"), in each case no later than close of business in New York on the Auction Date. The Clearing House shall determine the spread in relation to each Crossed Mid-Price Setting Transaction by taking the average of all of the Crossed Bids and Crossed Offers. The process for determining the parties to each Crossed Mid-Price Setting Transaction and the spread in relation to each Crossed Mid-Price Setting Transaction shall be further defined in the Cash Settlement Supplement. Upon the Clearing House's request, each Cash Settlement Participant that is required to enter into a Crossed Mid-Price Setting Transaction pursuant to this paragraph (e) shall provide evidence that it has entered into such Crossed Mid-Price Setting Transaction (and such evidence may include the Cash Settlement Participant identifying a transaction cleared with the Clearing House that corresponds to such Crossed Mid-Price Setting Transaction).

4.FURTHER POWERS AND INFORMATION

(a) In the event that no prices are received in relation to a Discounting Risk Auction for a Maturity Bucket by the end of the relevant bidding window identified ~~above~~ in the Cash Settlement Supplement, or the Clearing House otherwise determines, in its sole and absolute discretion, that it would be appropriate to do so, the Clearing House may:

(i) hold one or more further auctions on the Auction Date or subsequent days;

(ii) split the portfolio of Net Auction Contract Pairs into different groups or notional amounts; and/or

(iii) take any other steps that it considers appropriate in order to obtain bids or offers in relation to the Net Auction Contract Pairs in such Maturity Bucket,

and it shall make any consequential adjustments to the terms of the Rate Change Notice(s) relating to SOFR as it considers appropriate, and the terms of this Annex (including, but not limited to, the "Auction Date") shall be construed accordingly.

(b) If, having taken the steps above in connection with a Discounting Risk Auction, where applicable, no prices are received in relation to one or more of the Maturity Buckets then the Clearing House will determine that no further auctions shall take place with respect to the relevant Maturity Bucket(s) and all Cash Only Clients shall have Discounting Risk Swaps for such relevant Maturity Bucket(s) registered in the relevant Individual Segregated Account, "position account" within an Omnibus Segregated Account or FCM Client

Sub-Accounts (as applicable) notwithstanding any Cash Only Election Notices previously delivered in respect of such SwapClear Clearing Clients or FCM Clients, ~~and the spread on the SOFR leg of each Discounting Risk Swap which references SOFR shall be determined by the Clearing House using observable market data, including the Clearing House's zero coupon yield curve for SOFR (constructed in accordance with the Procedures).~~

- (c) If, in relation to a Maturity Bucket, the Clearing House is unable to auction and liquidate the full notional amount of the Discounting Risk Swaps that are the subject of the auction for that Maturity Bucket (including, without limitation, because the aggregate notional amount for which bids are received in relation to that Maturity Bucket is less than the entire notional amount of such Discounting Risk Swaps) (the **Non-Auctioned Swaps**), the Clearing House shall, notwithstanding any Cash Only Election Notices previously delivered, allocate the Non-Auctioned Swaps to each Cash Only Client Position Account, with each Cash Only Client Position Account being allocated a share of the Non-Auctioned Swaps pro rata to that Cash Only Client Position Account's share of the total notional amount of Discounting Risk Swaps for that Maturity Bucket that would, but for the delivery of the Cash Only Election Notices, have been registered in each of the Cash Only Client Position Accounts.

5. LIMITATION OF LIABILITY

5.1 Without prejudice to the generality of Regulation 52, each SwapClear Clearing Member agrees:

- (a) that neither the Clearing House nor any other member of the LCH Group will have any liability whatsoever to any SwapClear Clearing Member or any other person (including, without limitation, any SwapClear Clearing Client) whether in contract, tort (including, without limitation, negligence), trust, as a fiduciary or under any other cause of action, and whether in respect of any damages, loss or gain, cost or expense (whether direct, indirect, general, special, consequential, punitive or otherwise); and

- (b) to waive any claim against the Clearing House or any member of the LCH Group;

arising or that may arise in connection with:

- (i) any determination, calculation, exercise of discretion, or decision, taken or not taken by the Clearing House or any other member of the LCH Group in connection with the Cash Settlement Schedule; or

- (ii) the determination or publication of any price, curve, data, quote or other information arising from, or in connection with, the Cash Settlement Schedule;

except in the case of fraud or wilful misconduct on the part of the Clearing House or any other member of the LCH Group.

5.2 Without prejudice to the generality of Regulation 52 and clause 5.1 above, each SwapClear Clearing Member further agrees:

- (a) that neither the Clearing House nor any other member of the LCH Group will have any liability whatsoever to any SwapClear Clearing Member or any other person (including, without limitation, any SwapClear Clearing Client) in tort (including, without limitation, negligence), trust, as a fiduciary or under any other non-contractual cause of action, or under any implied

contractual term, and whether in respect of any damages, loss or gain, cost or expense (whether direct, indirect, general, special, consequential, punitive or otherwise); and

(b) to waive any non-contractual claim or claim under any implied contractual term against the Clearing House or any member of the LCH Group;

arising or that may arise in connection with the Clearing House's performance of its contractual duties or obligations under the Cash Settlement Schedule, except in the case of fraud or wilful misconduct on the part of the Clearing House or any other member of the LCH Group.

5.3 Each SwapClear Clearing Member agrees that neither the Clearing House nor any other member of the LCH Group (i) owes any duty of care to any person in connection with the performance of the Clearing House's duties or obligations or exercise of its rights under the Cash Settlement Schedule, save for the express contractual duties set forth in the Cash Settlement Schedule; (ii) is under any obligation to research, investigate, supplement, or verify the veracity of, any price, data, quote or other information received from a SwapClear Clearing Member in connection with the Cash Settlement Schedule; (iii) is acting as a fiduciary for, or as an advisor to, any SwapClear Clearing Member or SwapClear Clearing Client in connection with the Cash Settlement Schedule or any SwapClear Contract registered as a result of the matters specified in the Cash Settlement Schedule; (iv) shall be under any requirement to consult with, or individually notify, a SwapClear Clearing Member or SwapClear Clearing Client in connection with making its determinations, exercising its discretions or performing its duties or obligations or exercising its rights, each under the Cash Settlement Schedule; or (v) has made any representation, express or implied, in relation to the Cash Settlement Schedule, and each SwapClear Clearing Member acknowledges that it has not relied on any representations made by the Clearing House or any other member of the LCH Group in relation to the Cash Settlement Schedule.

5.4 For the avoidance of doubt, notwithstanding anything herein ~~or~~, in the [applicable Rate Change Annex for SOFR](#) or Cash Settlement Supplement, neither the Clearing House nor any other member of the LCH Group shall be liable for any obligations of, or to any person who is not, a SwapClear Clearing Member.

Appendix II
FCM Procedures



FCM PROCEDURES OF THE CLEARING HOUSE

LCH LIMITED

SCHEDULE 7 - RATE CHANGE ANNEXES: SWAPCLEAR FCM SERVICE - RATE CHANGE
ANNEX – SECURED OVERNIGHT FINANCING RATE (SOFR)

1.SCOPE AND INTERPRETATION

- (a) This Annex constitutes a “Rate Change Annex” as defined in and pursuant to the FCM Regulations and supplements and forms part of the FCM Rulebook.
- (b) This Annex relates to the change in the rate from the Fed Funds Rate to the Secured Overnight Financing Rate provided by the Federal Reserve Bank of New York, as administrator (or a successor administrator) (**SOFR**) for the purposes of (i) calculating the Price Alignment Amount, and (ii) constituting the relevant underlying benchmark for the instruments used to construct the Clearing House’s zero coupon yield curves under 2.1.7 of the FCM Procedures to calculate the net present value, each in relation to the Impacted FCM SwapClear Contracts.
- (c) The terms of this Annex shall apply to all Impacted FCM SwapClear Contracts (as set-out in the Rate Change Notice relating to SOFR) that are registered with the Clearing House as set out below. For the avoidance of doubt, (i) no other FCM SwapClear Contract shall be subject to, or affected by, the terms of this Annex and each FCM SwapClear Contract shall remain in full force and effect, and (ii) the FCM SwapClear Contract Terms shall not be amended by the terms of this Annex.
- (d) Capitalized terms used but not otherwise defined in this Annex have the meaning given to them in the FCM Regulations.
- (e) The terms of this Annex relating to operational or procedural matters may be supplemented, modified, amended, replaced or withdrawn from time to time by the Clearing House in its sole discretion through a member circular or such other method as the Clearing House shall determine is appropriate.

2.DEFINITIONS

For the purposes of this Annex:

Auction Adjustment per Unit means, in relation to a Maturity Bucket, an amount in USD equal to (i) the aggregate of all Auction Winner Amounts for that Maturity Bucket divided by (ii) the total notional amount of Discounting Risk Swaps in that Maturity Bucket which have been liquidated pursuant to the Cash Settlement Schedule.

Auction Date means, in relation to a Rate Change Notice relating to SOFR, the date specified as such by the Clearing House in such Rate Change Notice, being the date on which the auctions referred to herein and the Cash Settlement Supplement shall be held and certain amounts payable hereunder shall be calculated.

Auction Winner means, in relation to the Net Auction Contract Pair in respect of a Maturity Bucket, each Cash Settlement Participant (as defined in the Cash Settlement Schedule) that has submitted the winning price for such Net Auction Contract Pair, as determined by the Clearing House in accordance with the Cash Settlement Supplement.

Auction Winner Amount means, in relation to the Net Auction Contract Pair for Maturity Bucket and an Auction Winner, an amount in USD equal to the product of: (i) that Auction Winner's Winning Bid Quantity; (ii) the difference between that Auction Winner's Winning Bid Price and the Mid-Price; and (iii) the SOFR Basis Point

Cash Value per Million, each for that Maturity Bucket. If the Auction Winner's Winning Bid Price is a price that by reference to the Mid-Price is (a) in favor of the Clearing House, the Auction Winner Amount shall be a negative amount or (b) in favor of the Auction Winner, the Auction Winner Amount shall be a positive amount.

Cash Compensation Contract means each contract determined by the Clearing House and registered in the relevant Proprietary Account, or an FCM Client Sub-Account pursuant to Section 8 below.

Cash Only Client means an FCM Client that has its positions recorded in a Cash Only Client Position Account.

Cash Only Client Position Account means each FCM Client Sub-Account registered in the name of an FCM Client that is identified as a Cash Only Client Position Account in a Cash Only Election Notice.

Cash Only Client Position Account Auction Adjustment means, in relation to a Cash Only Client Position Account and a Maturity Bucket, an amount in USD in favor of the Clearing House or an FCM Clearing Member (as applicable) equal to the product of (i) the notional amount of Discounting Risk Swaps for that Maturity Bucket that would, but for the delivery of the Cash Only Election Notice, have been registered in that Cash Only Client Position Account and which have been liquidated pursuant to the Cash Settlement Schedule, and (ii) the Auction Adjustment per Unit for that Maturity Bucket.

Cash Only Election Cut-Off Date is the date specified as such by the Clearing House in a Rate Change Notice relating to SOFR, being the date by which FCM Clearing Members must deliver any Cash Only Election Notices to the Clearing House.

Cash Only Election Notice means a written notice delivered by an FCM Clearing Member to the Clearing House in accordance with this Annex identifying those FCM Clients and the related FCM Client Sub-Accounts which have elected to be Cash Only Client Position Account(s) in accordance with Section 4 of this Annex.

Cash Settlement Schedule means the schedule to the SCM SOFR Rate Change Annex which sets-out the terms on which the Clearing House shall conduct one or more auctions for purposes of determining certain amounts, curves and spreads and related [concepts information](#) relevant to this Annex, as supplemented by any Cash Settlement Supplement published by the Clearing House from time to time. The Cash Settlement Schedule supplements, and forms part of, this Annex.

Cash Settlement Supplement means any document identified as such by the Clearing House which supplements and forms part of the Cash Settlement Schedule and sets out further terms in relation to the [auction auctions](#).

Cash Valuation Change Amount (MXN) means each amount denominated in MXN and determined in accordance with Section 7.5 of this Annex.

Cash Valuation Change Amount (USD) means each amount denominated in USD and determined in accordance with Section 7.1, Section 7.2 or Section 7.3 of this Annex.

De Minimis Participant Account means, in relation to a Maturity Bucket, any Proprietary Account, or any FCM Client Sub-Account that, as of the Swap Portfolio Calculation Date, would have an allocation of Discounting Risk Swaps in a given Maturity Bucket with a notional amount that is closer to zero than to the integral number set out in the table in paragraph 5.1(c) in relation to that Maturity Bucket.

[Discounting Risk Auction](#) has the meaning given to it in the Cash Settlement Schedule.

Discounting Risk Swaps means the FCM SwapClear Contracts determined, identified and notified by the Clearing House in accordance with Section 5 of this Annex and entered into and registered between the Clearing House and an FCM Clearing Member pursuant to Regulation 48A.

FedFunds Discounted Value means, in relation to an Impacted FCM SwapClear Contract, the net present value, as of the end of the Business Day in New York on the Auction Date, of all future cash flows under that Impacted FCM SwapClear Contract calculated using the Fed Funds Rate as the discounting rate for the purposes of constructing the zero coupon yield curves under 2.1.7 of the FCM Procedures (with the future cash flows calculated in the same manner as for the determination of the SOFR Discounted Value). If the net present value represents an asset or positive value for the Clearing House, such FedFunds Discounted Value shall be a positive amount and if the net present value represents a liability or negative value for the Clearing House, such FedFunds Discounted Value shall be a negative amount.

Maturity Bucket means, in relation to the Impacted FCM SwapClear Contracts, Discounting Risk Swaps and Net Auction Contract Pairs, a group of such contracts which all have the same maturity, being either two years, five years, ten years, fifteen years, twenty years or thirty years from the date of registration.

Mid-Price has, in relation to the Net Auction Contract Pair for a Maturity Bucket, the meaning given to it in the Cash Settlement Schedule, and shall be expressed in basis points.

[Mid-Price Auction has the meaning given to it in the Cash Settlement Schedule.](#)

MXN Impacted SwapClear Contracts has the meaning given to it in Section 7 of this Annex.

Net Auction Contract Pair has the meaning given to it in the Cash Settlement Schedule.

SCM SOFR Rate Change Annex means the rate change annex published by the Clearing House in relation to SOFR under Regulation 60B of the UK General Regulations.

SOFR Basis Point Cash Value per Million means, in relation to the Net Auction Contract Pair for a Maturity Bucket, an amount in USD equal to the change (expressed as a positive if a gain and a negative if a loss) in value of such Net Auction Contract Pair with a notional amount of USD one million as a result of adding a one basis point spread to the SOFR leg, as determined by the Clearing House in its sole discretion.

SOFR Discounted Value means, in relation to an Impacted FCM SwapClear Contract, the net present value, as of the end of the Business Day in New York on the Auction Date, of all future cash flows under that Impacted FCM SwapClear Contract using the SOFR Discounting Curve for the purposes of such calculation (with the future cash flows calculated in the same manner as for the determination of the FedFunds Discounted Value). If the net present value represents an asset or positive value for the Clearing House, such SOFR Discounted Value shall be a positive amount and if the net present value represents a liability or negative value for the Clearing House, such SOFR Discounted Value shall be a negative amount.

SOFR Discounting Curve means the SOFR pricing curve constructed by the Clearing House in accordance with Section 4 of the Cash Settlement Schedule.

Swap Portfolio Calculation Date means, in relation to a Rate Change Notice relating to SOFR the date specified as such by the Clearing House in such Rate Change Notice relating to SOFR, being the date on which the Clearing House shall determine the portfolios of Discounting Risk Swaps in relation to all Impacted FCM SwapClear Contracts registered with the Clearing House on such date.

Winning Bid Price means, in relation to the Net Auction Contract Pair for a Maturity Bucket and an Auction Winner, the price payable to, or by, that Auction Winner to the Clearing House, expressed as a positive or negative spread in basis points on the SOFR leg of the Net Auction Contract Pair for that Maturity Bucket and determined through a modified Dutch auction as further set-out in the Cash Settlement Supplement(s). For the avoidance of doubt: (a) if the Clearing House is the receiver of SOFR under the Net Auction Contract Pair, and (1) the spread is a positive amount, the Winning Bid Price shall be a positive amount; or (2) the spread is a negative amount, the Winning Bid Price shall be a negative amount; and (b) if the Clearing House is the receiver of the Fed Funds Rate under the Net Auction Contract Pair, and (1) the spread is a positive amount, the Winning Bid Price shall be a negative amount; or (2) the spread is a negative amount, the Winning Bid Price shall be a positive amount.

Winning Bid Quantity means, in relation to an Auction Winner and a Net Auction Contract Pair for a Maturity Bucket, the notional amount (expressed in units of USD one million) of the Discounting Risk Swap related to such Net Auction Contract Pair (or the part thereof) which will be determined by the Clearing House pursuant to the Cash Settlement Supplement and registered in the Proprietary Account of the Auction Winner.

3.OBLIGATIONS TO MAKE CERTAIN CALCULATIONS AND ENTER INTO CERTAIN CONTRACTS

(a) In connection with the change from the Fed Funds Rate to SOFR described in Section 1(b) above, pursuant to and in accordance with the Clearing House's powers under Regulation 48A of the FCM Regulations, this Annex sets out the method by which the Clearing House will:

Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN) and Cash Compensation Contracts

(i) for each Proprietary Account and each FCM Client Sub-Account, calculate the following amounts, in each case, if any:

(A) Cash Valuation Change Amount (USD); and

(B) Cash Valuation Change Amount (MXN),

each of which are "Rate Change Payments" for the purpose of Regulation 48A.

(ii) determine and register, pursuant to Regulation 48A, certain Cash Compensation Contracts in each Proprietary Account and FCM Client Sub-Account in accordance with Section 8 of this Annex in order to effect the payment of each Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Account Auction Adjustment, and Auction Winner Amount, in each case, if any;

Discounting Risk Swaps and Auction Winner Amounts

(iii) subject to (b) below, for (x) each Proprietary Account and (y) each FCM Client Sub-Account which is not a Cash Only Client Position Account, determine how certain Discounting Risk Swaps shall be identified in accordance with Section 5, registered and entered into between the Clearing House and each FCM Clearing Member pursuant to Regulation 48A and the terms of those Discounting Risk Swaps;

(iv) subject to (b) below, for each Cash Only Client Position Account, calculate the related Cash Only Client Position Account Auction Adjustments (which shall also each be a "Rate Change Payment" for the purpose of Regulation 48A); and

(v) for each Auction Winner, calculate the Auction Winner Amount (which shall also be a "Rate Change Payment" for the purpose of Regulation 48A).

(b) Any account that is a De Minimis Participant Account in relation to a Maturity Bucket shall not have any Discounting Risk Swaps in that Maturity Bucket determined or registered in its name and shall not be obliged to pay, or entitled to receive, any Cash Only Client Position Account Auction Adjustments. Any Cash Only Election Notice received in relation to an FCM Client Sub-Account that is a De Minimis Participant Account as of the Auction Date shall be invalid and shall have no effect whatsoever (and, for the avoidance of doubt, the Discounting Risk Swaps that would otherwise be registered in any De Minimis Participant Account shall not count towards the Net Auction Contract Pair for any Maturity Bucket).

4. CLEARING MEMBER DEALINGS WITH FCM CLIENTS AND CLIENT CASH ONLY ELECTIONS

Client Cash Only Elections

(a) In relation to its SwapClear Client Clearing Business, an FCM Clearing Member shall provide each FCM Client with an election not to have Discounting Risk Swaps registered on that FCM Client's behalf in relation to Impacted FCM SwapClear Contracts registered in the relevant FCM Client Sub-Account and instead, subject to Section 4(d) below, to assume a right, or an obligation to pay or be paid an amount equal to the Cash Only Client Position Account Auction Adjustment in respect of each FCM Client Sub-Account, as determined pursuant to this Annex (except in the circumstances provided for in the Cash Settlement Schedule, where the election not to have Discounting Risk Swaps registered may be overridden).

(b) An FCM Clearing Member shall be entitled to deliver Cash Only Election Notices to the Clearing House at any time up to, and including, the Cash Only Election Cut-Off Date. All Cash Only Election Notices must be delivered to the Clearing House via the SwapClear Portal.

(c) No FCM Clearing Member shall be entitled to deliver a Cash Only Election Notice in respect of its Proprietary Accounts and any such notice shall be invalid and shall have no effect whatsoever.

(d) The Clearing House reserves the right to reject any Cash Only Election Notice received by the Clearing House after the end of the Business Day in New York on the Cash Only Election Cut-Off Date. An FCM Clearing Member shall only be entitled to deliver a Cash Only Election Notice in respect of all, but not some only, of the FCM SwapClear Contracts registered in the name of an FCM Client in a single FCM Client Sub-Account.

(e) The delivery by an FCM Clearing Member of a Cash Only Election Notice shall be deemed, as of the end of the Business Day in New York on the Cash Only Election Cut-Off Date, to be an irrevocable instruction of that FCM Clearing Member (for itself and acting on behalf of the relevant FCM Client(s) for whom the FCM Client Sub-Account which such Cash Only Election Notice affects is held) to the Clearing House to determine the Cash Valuation Change Amount (USD), the Cash Valuation Change Amount (MXN) and each Cash Only Client Position Account Auction Adjustment payable to or by that FCM Clearing Member in accordance with Section 7.3, Section 7.4 and Section 7.5 of this Annex and to register the related Cash Compensation Contracts in the relevant FCM Client Sub-Account in accordance with this Annex.

(f) If an FCM Clearing Member does not deliver a Cash Only Election Notice in respect of an FCM Client Sub-Account held for an FCM Client then that shall be deemed, as of the end of the Business Day in New York on the Cash Only Election Cut-Off Date, to be an irrevocable instruction of that FCM Clearing Member (for itself and acting on behalf of that FCM Client) to the Clearing House to (i) determine the Cash Valuation Change Amount (USD) and the Cash Valuation Change Amount (MXN) in accordance with Section 7.2 and Section 7.5 of this Annex and to register the related Cash Compensation Contract in the relevant FCM Client Sub-Account in accordance with this Annex, and (ii) determine the Discounting Risk Swaps to be allocated to such FCM Client's FCM Client Sub-Account in accordance with this Annex and to register such Discounting Risk Swaps in such account.

(g) By not delivering a Cash Only Election Notice, in relation to an FCM Client Sub-Account, each FCM Clearing Member represents and warrants to the Clearing House on the Cash Only Election Cut-Off Date that (i) it has used reasonable endeavors to obtain instructions from the FCM Client in relation to the exercise of an election not to receive Discounting Risk Swaps in relation to such account and (ii) it has not received instructions from any FCM Client to deliver a Cash Only Election Notice in respect of such account.

Clearing Member Obligations

(h) Each FCM Clearing Member (and in the case of (h)(vi) below, each FCM Clearing Member and the Clearing House):

(i) agrees to use reasonable endeavors to provide its FCM Clients with information on (i) the change in the rate from the Fed Funds Rate to SOFR pursuant to the terms of Regulation 48A and this Annex, (ii) the amounts payable pursuant to the terms the Cash Compensation Contracts which may be registered in that FCM Client's FCM Client Sub-Account pursuant to the terms of this Annex, (iii) the Discounting Risk Swaps which may be allocated to that FCM Client's FCM Client Sub-Account pursuant to the terms of this Annex, and (iv) other information (indicative or otherwise) in relation to each FCM Client's FCM Client Sub-Account that the Clearing House has notified FCM Clearing Members must be provided to FCM Clients. Such information shall include the terms of this Annex and any information which it has received from, or is made available by, the Clearing House in connection with this Annex, including any risk disclosure statements relating to the matters herein;

(ii) agrees that it, and each applicable FCM Client, shall be bound by the terms of any Cash Compensation Contracts and Discounting Risk Swaps registered pursuant to this Annex and all payment obligations thereunder (as determined by the Clearing House pursuant to this Annex);

(iii) represents and warrants to the Clearing House as at the Cash Only Election Cut-off Date that each Cash Only Client in relation to which it has delivered a Cash Only Election Notice (A) has instructed the FCM Clearing Member to deliver the Cash Only Election Notice on its behalf, and (B) has expressly agreed (i) that by electing for its FCM Client Sub-Account to be a Cash Only Client Position Account under this Annex it shall not, other than if (X) the Cash Settlement Schedule provides that one or more ~~actions~~ Discounting Risk Auctions have failed, or (Y) some of the Discounting Risk Swaps are not successfully auctioned and liquidated in accordance with the Cash Settlement Schedule, be party to any Discounting Risk Swaps (ii) that it shall be obliged to pay or entitled to receive the Cash Valuation Change Amount (USD), the Cash Valuation Change Amount (MXN) and, provided the Cash Only Client Position Account is not a De Minimis Participant Account, each Cash Only Client Position Account Auction Adjustment determined in accordance with Section 7.3, Section 7.4 and Section 7.5 of this Annex, and (iii) that the Cash

Only Client Position Account Auction Adjustment may not be economically equivalent to being party to any such Discounting Risk Swaps or liquidating, closing-out, selling or replacing the Discounting Risk Swaps in the relevant market;

- (iv) acknowledges that the Cash Valuation Change Amounts, the Auction Winner Amounts, each Cash Only Client Position Account Auction Adjustment, and the spread ~~on~~in relation to the ~~SOFR leg of the~~ Discounting Risk Swaps shall be determined by reference to the ~~auction~~Discounting Risk Auctions and the Mid-Price Auctions, and agrees to be bound by the results of such ~~auction~~auctions and the terms of the Cash Settlement Schedule and the Cash Settlement Supplement;
- (v) agrees to perform all obligations and exercise all rights under this Annex, the Cash Settlement Schedule, the Cash Settlement Supplement, the Cash Compensation Contracts and the Discounting Risk Swaps in accordance with Applicable Law; and
- (vi) agrees (in the case of the Clearing House) and acknowledges (in the case of the FCM Clearing Member) that each Cash Compensation Contract and Discounting Risk Swap is being registered in the relevant account in connection with the matters specified in this Annex and the obligations thereunder are for the sole purpose of addressing the value and discounting risk impact of the change from the Fed Funds Rate to SOFR and effecting the payment of amounts owed to, or payable by, the Auction Winner.

5.DETERMINING THE PORTFOLIO OF DISCOUNTING RISK SWAPS

5.1 On the Swap Portfolio Calculation Date, the Clearing House shall allocate Impacted FCM SwapClear Contracts into different Maturity Buckets based on the tenor of the discounting risk associated with such Impacted FCM SwapClear Contracts. Any Impacted FCM SwapClear Contract that has discounting risk with a tenor that falls between two different Maturity Buckets shall be allocated to the nearest two Maturity Buckets in the Clearing House's sole and absolute discretion. Separately in respect of the Impacted FCM SwapClear Contracts allocated to each Maturity Bucket in each Proprietary Account and FCM Client Sub-Account, determine a portfolio of Discounting Risk Swaps which is designed to, in the Clearing House's sole and absolute discretion and to the extent practicable, replicate the Fed Funds Rate discounting risk profile in relation to such FCM SwapClear Contracts as of the Swap Portfolio Calculation Date. For the avoidance of doubt, the determination by the Clearing House pursuant to this paragraph may be different from an FCM Clearing Member's or FCM Client's models or methodologies. Each pair of Discounting Risk Swaps will:

- (a) have a maturity of two years, five years, ten years, fifteen years, twenty years or thirty years from the date of registration;
- (b) when registered, comprise a pair of FCM SwapClear Contracts whereby:
 - (i) under the first FCM SwapClear Contract, the Clearing House or the FCM Clearing Member (**Party X**) will receive ~~SOFR plus or minus a spread which shall be equal to the relevant Mid-Price determined pursuant to the Cash Settlement Schedule~~Fed Funds and pay to the other party (**Party Y**) ~~a fixed rate; and~~fixed amounts, which shall be determined by reference to the fixed rate, determined by the Clearing House in accordance with its usual processes, that would be payable on the fixed leg of a FCM SwapClear Contract at the close of business on the Swap Portfolio Calculation Date where the floating rate is the

Fed Funds Rate and the maturity date corresponds to the applicable maturity referred to in (a) above; and

(ii) under the second FCM SwapClear Contract, Party X will ~~receive the same fixed rate as pay SOFR and receive from Party Y a fixed amount, which shall be a fixed rate, determined by subtracting the spread equal to the Mid-Price determined pursuant to the Cash Settlement Schedule from the fixed rate~~ referred to in (i) ~~immediately above and pay to Party Y the Fed Funds Rate with no spread, and~~ above provided that if the process referred to in the Cash Settlement Schedule fails to provide the Mid-Price for the relevant Maturity Bucket, the Clearing House shall determine the spread for that Maturity Bucket using its customary methodology and applying it to observable market data points and applying linear interpolation where the Clearing House considers appropriate; and

(c) have a notional amount that is determined by the Clearing House, in its sole and absolute discretion, where such notional amount shall be rounded to the nearest integral number set out in the following table:

Maturity Bucket	2Y	5Y	10Y	15Y	20Y	30Y
Amount in USD to which the notional amount will be rounded to	5,000,000	2,500,000	1,250,000	500,000	500,000	500,000

5.2 The Clearing House shall separately determine the portfolio of Discounting Risk Swaps in respect of each of the following (excluding, in relation to a Maturity Bucket, any De Minimis Participant Accounts in relation to that Maturity Bucket) as of the Swap Portfolio Calculation Date:

- (a) the Impacted FCM SwapClear Contracts then registered in each FCM Clearing Member's Proprietary Account; and
- (b) the Impacted FCM SwapClear Contracts then registered in each FCM Client's FCM Client Sub-Account.

5.3 The Clearing House shall promptly notify each FCM Clearing Member of each portfolio of Discounting Risk Swaps it has determined pursuant to this Section 5 in respect of each account held by each FCM Clearing Member as set out above.

5.4 Without prejudice to the above, at any time prior to the Swap Portfolio Calculation Date, the Clearing House may publish indicative portfolios of the Discounting Risk Swaps in relation to the Impacted FCM SwapClear Contracts then registered in the name of an FCM Clearing Member for information only.

6. THE ~~AUCTION~~ AUCTIONS

6.1 On the Auction Date the Clearing House shall conduct one or more ~~auctions~~ Discounting Risk Auctions and Mid-Price Auctions and each such auction shall be conducted ~~shall apply to~~ in respect of both LCH's SCM

service and LCH's FCM service. The initial terms of the ~~auctions~~ Discounting Risk Auctions and the Mid-Price Auctions shall be as set out in the Cash Settlement Schedule and the Clearing House shall supplement such terms to provide further detail on the operation of the auctions through publication of one or more Cash Settlement Supplements, provided however that, the Clearing House shall not be entitled to materially alter the nature of the obligations of any FCM Clearing Member under this Rate Change Annex via any Cash Settlement Supplement. Each Cash Settlement Supplement shall be deemed to supplement, and form part of, the Cash Settlement Schedule and the Clearing House shall be entitled to supplement, modify, amend, replace or withdraw the Cash Settlement Schedule or Cash Settlement Supplements (in whole or in part) from time to time in its sole discretion through such method as the Clearing House shall determine is appropriate.

6.2 Each FCM Clearing Member that is an Expected Cash Settlement Participant (as defined in the Cash Settlement Schedule) agrees that it shall use all reasonable efforts to submit pricing in accordance with this Cash Settlement Schedule for the Net Auction Contract Pair in each Maturity Bucket.

6.3 If, having taken the steps in Section 4(a) of the of the Cash Settlement Schedule in connection with a Discounting Risk Auction, where applicable, no prices are received in relation to one or more of the Maturity Buckets then the Clearing House will determine that no further auctions shall take place with respect to the relevant Maturity Bucket(s) and all Cash Only Clients shall have Discounting Risk Swaps for such relevant Maturity Bucket(s) registered in the FCM Client Sub-Accounts notwithstanding any Cash Only Election Notices previously delivered in respect of such FCM Clients, ~~and the spread on the SOFR leg of each Discounting Risk Swap which references SOFR shall be determined by the Clearing House using observable market data, including the Clearing House's zero coupon yield curve for SOFR (constructed in accordance with the FCM Procedures).~~

6.4 If, in relation to a Maturity Bucket, the Clearing House is unable to auction and liquidate the full notional amount of the Discounting Risk Swaps that are the subject of the auction for that Maturity Bucket (including, without limitation, because the aggregate notional amount for which bids are received in relation to that Maturity Bucket is less than the entire notional amount of such Discounting Risk Swaps) (the **Non-Auctioned Swaps**), then the Clearing House shall, notwithstanding any Cash Only Election Notices previously delivered, allocate the Non-Auctioned Swaps to each Cash Only Client Position Account, with each Cash Only Position Client Account being allocated a share of the Non-Auctioned Swaps pro rata to that Cash Only Client Position Account's share of the total notional amount of Discounting Risk Swaps for that Maturity Bucket that would, but for the delivery of the Cash Only Election Notices, have been registered in each of the Cash Only Client Position Accounts.

7. THE CASH VALUATION CHANGE AMOUNTS AND THE CASH ONLY CLIENT POSITION ACCOUNT AUCTION ADJUSTMENTS

All Impacted FCM SwapClear Contracts other than TIIE Interest Rate Swaps denominated in MXN

The following provisions are applicable in relation to all Impacted FCM SwapClear Contracts other than Impacted FCM SwapClear Contracts that are TIIE interest rate swaps denominated in MXN. With respect to the calculations to be performed under Section 7.1 to 7.3 (inclusive) below, for the purposes of determining the Cash Valuation Change Amount (USD) in relation to non-deliverable interest rate swaps the Clearing House shall first convert into USD the value of the discounted future cash flows which are not denominated in USD by applying the relevant rate of exchange as determined by the Clearing House in accordance with its usual procedures. Each of the calculations performed under Sections 7.1 to 7.3

(inclusive) below shall include any non-deliverable interest rate swaps registered in the relevant account as of the end of the Business Day in New York on the Auction Date.

Proprietary Accounts

7.1 Immediately following the conclusion of ~~the auction~~ [Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auction~~ [such auctions](#) shall not occur) on the Auction Date, the Clearing House shall calculate the Cash Valuation Change Amount (USD) in respect of each Proprietary Account as follows:

- (a) the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to each Impacted FCM SwapClear Contract registered in each Proprietary Account as of the end of the Business Day in New York on the Auction Date;
- (b) if the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in a Proprietary Account exceeds the aggregate FedFunds Discounted Value in relation to all such Impacted FCM SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the Clearing House in relation to such Proprietary Account; and
- (c) if the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in a Proprietary Account is less than the aggregate FedFunds Discounted Value in relation to all such Impacted FCM SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the FCM Clearing Member in relation to such Proprietary Account.

FCM Client Sub-Accounts (excluding Cash Only Position Client Accounts)

7.2 The following only applies in relation to each FCM Client Sub-Account that is not a Cash Only Client Position Account. Immediately following the conclusion of the ~~auction~~ [Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auction~~ [such auctions](#) shall not occur) on the Auction Date the Clearing House shall determine the Cash Valuation Change Amount (USD) in respect of the Impacted FCM SwapClear Contracts registered in each FCM Client Sub-Account that is not a Cash Only Client Position Account as follows:

- (a) the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in such account as of the end of the Business Day in New York on the Auction Date;
- (b) if the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in such account exceeds the aggregate FedFunds Discounted Value in relation to all such Impacted FCM SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the excess and shall be an amount in favor of the Clearing House in relation to such account; and
- (c) if the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in such account is less than the aggregate FedFunds Discounted Value in relation to all such Impacted FCM SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the FCM Clearing Member in relation to such account.

Cash Only Client Position Accounts

7.3 The following applies only in relation to Cash Only Client Position Accounts. Immediately following the conclusion of the ~~auetion~~[Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auetion~~[such auctions](#) shall not occur) on the Auction Date the Clearing House shall determine the Cash Valuation Change Amount (USD) in respect of the Impacted FCM SwapClear Contracts registered in a Cash Only Client Position Account as follows:

- (a) the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in such account as of the end of the Business Day in New York on the Auction Date;
- (b) if the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in such account exceeds the aggregate FedFunds Discounted Value in relation to all such Impacted FCM SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the Clearing House in relation to such account;
- (c) if the aggregate SOFR Discounted Value in relation to all Impacted FCM SwapClear Contracts registered in such account is less than the aggregate FedFunds Discounted Value in relation to all such Impacted FCM SwapClear Contracts then the Cash Valuation Change Amount (USD) shall be an amount equal to the absolute value of the difference and shall be an amount in favor of the FCM Clearing Member in whose name such Cash Only Client Position Account is held; and

7.4 Immediately following the conclusion of the ~~auetion~~[Discounting Risk Auctions](#) on the Auction Date, provided that the ~~auetion~~[Discounting Risk Auction](#) for the relevant Maturity ~~Buckets~~[Bucket](#) occurs in accordance with the Cash Settlement Schedule, the Clearing House shall calculate, in respect of each Cash Only Client Position Account the aggregate Cash Only Client Position Account Auction Adjustment in relation to each Maturity Bucket.

Impacted FCM SwapClear Contracts which are TIIE Interest Rate Swaps denominated in MXN

7.5 Immediately following the conclusion of the ~~auetion~~[Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auetion~~[such auctions](#) shall not occur) on the Auction Date the Clearing House shall determine the Cash Valuation Change Amount (MXN) separately in respect of each Impacted FCM SwapClear Contracts that is a TIIE interest rate swap denominated in MXN (**MXN Impacted SwapClear Contracts**) registered in each Proprietary Account or FCM Client Sub-Account, as follows:

- (a) first, for the purposes of determining the Cash Valuation Change Amount (MXN) in relation to the MXN Impacted FCM SwapClear Contracts, the value of the discounted future cash flows thereunder shall be multiplied by the relevant USD/MXN rates of exchange determined by the Clearing House in accordance with the Clearing House's usual procedures;
- (b) second, the Clearing House shall calculate the aggregate FedFunds Discounted Value and the aggregate SOFR Discounted Value in relation to all MXN Impacted FCM SwapClear Contracts registered in such account as of the end of the Business Day in New York on the Auction Date;
- (c) if the aggregate SOFR Discounted Value in relation to all such MXN Impacted FCM SwapClear Contracts registered in such account exceeds the aggregate FedFunds Discounted Value in relation to all such MXN Impacted SwapClear Contracts then the Cash Valuation Change Amount (MXN)

shall be an amount in MXN equal to the absolute value of the difference and shall be an amount in favor of the Clearing House in relation to such account; and

(d) if the aggregate SOFR Discounted Value in relation to all MXN Impacted FCM SwapClear Contracts registered in such account is less than the aggregate FedFunds Discounted Value in relation to all such MXN Impacted FCM SwapClear Contracts then the Cash Valuation Change Amount (MXN) shall be an amount in MXN equal to the absolute value of the difference and shall be an amount in favor of the FCM Clearing Member in whose name such Cash Only Client Position Account is held.

8. REGISTRATION OF CASH COMPENSATION CONTRACTS

8.1 On the basis of the calculations set forth in Section 7 above, the Clearing House shall determine, as applicable, the Cash Valuation Change Amount (USD), the Cash Valuation Change Amount (MXN), the Cash Only Client Position Account Auction Adjustments and the Auction Winner Amount in respect of each Proprietary Account and each FCM Client Sub-Account and each FCM Clearing Member and the Clearing House (as applicable) irrevocably agrees that it shall be bound to pay such amounts to the other pursuant to the terms of the related Cash Compensation Contracts.

8.2 The Clearing House shall, pursuant to Regulation 48A, register a separate Cash Compensation Contract in each Proprietary Account and each FCM Client Sub-Account in relation to each of the following amounts (to the extent such amounts are applicable to such account)

(a) Cash Valuation Change Amounts (USD);

(b) Cash Valuation Change Amounts (MXN);

(c) Cash Only Client Position Account Auction Adjustments; and

(d) Auction Winner Amounts.

8.3 Each Cash Compensation Contract shall be registered for the sole purpose of effecting the payment of the Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Account Auction Adjustments or Auction Winner Amount (as applicable) to which it relates. It shall operationally be recorded as having a "Notional Amount" (as defined in the FCM SwapClear Contract Terms) of USD1 (or, in the case of the Cash Compensation Contract relating to the Cash Valuation Change Amount (MXN), MXN1), a "Termination Date" (as defined in the FCM SwapClear Contract Terms) falling two Business Days after the Auction Date, and an obligation on the Clearing House or the FCM Clearing Member (as applicable) to pay to the other an amount equal to the Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Account Auction Adjustments or Auction Winner Amount (as applicable) in relation to the relevant account, with such amounts determined in accordance with Section 7 of this Annex. However, neither the Clearing House nor an FCM Clearing Member shall be required to pay any amounts under a Cash Compensation Contract other than the Cash Valuation Change Amount (USD), Cash Valuation Change Amount (MXN), Cash Only Client Position Account Auction Adjustment or Auction Winner Amount (as applicable) to which such Cash Compensation Contract relates.

8.4 Each FCM Clearing Member agrees to be bound by each Cash Compensation Contract registered pursuant to this Section 8, which shall, when registered, constitute an FCM SwapClear Contract between the Clearing

House and the relevant FCM Clearing Member that has arisen by reason of the application of the Regulations to the Impacted FCM SwapClear Contracts.

9.REGISTRATION OF DISCOUNTING RISK SWAPS

9.1Immediately following the conclusion of the ~~auction~~[Discounting Risk Auctions](#) (or determination by the Clearing House that ~~the auction~~[such auctions](#) shall not occur) on the Auction Date the Clearing House shall notify all FCM Clearing Members of the Discounting Risk Swaps that will be registered in the accounts in accordance with this Annex. If the Clearing House exercises its powers pursuant to Section 4(b) of the Cash Settlement Schedule, then, as soon as practicable following such exercise, it shall notify all FCM Clearing Members of the Discounting Risk Swaps that will be registered in their Proprietary Accounts and FCM Client Sub-Accounts and it shall register such Discounting Risk Swaps in such accounts without regard to any Cash Only Election Notice.

9.2Except as provided in Section 9.3 below, on the first Business Day immediately following the Auction Date the Clearing House shall:

(a)in relation to each Auction Winner, register the related Discounting Risk Swaps (or portion thereof) in the Proprietary Account of the Auction Winner and each Auction Winner and the Clearing House shall become party to such Discounting Risk Swaps;

(b)in relation to each Proprietary Account other than De Minimis Participant Accounts, register the Discounting Risk Swaps determined pursuant to Section 5.2(a) in each FCM Clearing Member's Proprietary Account; and

(c)in relation to each FCM Client Sub-Account other than Cash Only Client Position Accounts and De Minimis Participant Accounts, register the Discounting Risk Swaps determined pursuant to Section 5.2(b) in relation to such FCM Client in the relevant account.

9.3Each FCM Clearing Member agrees to be bound by each Discounting Risk Swap registered pursuant to this Section 9, which shall, when registered, constitute FCM SwapClear Contracts between the Clearing House and the relevant FCM Clearing Member that have arisen by reason of the application of the Regulations to the Impacted FCM SwapClear Contracts.

10.DETERMINATIONS BINDING

Subject to Section 13, all determinations and calculations made by the Clearing House pursuant to this Annex and the Cash Settlement Schedule shall be binding and may in no circumstances (other than in the case of manifest error) be called into question by any person.

11.RECORDS

The Clearing House shall update its books and records to reflect the Discounting Risk Swaps, Cash Compensation Contracts, Cash Valuation Change Amounts (USD), Cash Valuation Change Amounts (MXN), Auction Winner Amounts and Cash Only Client Position Account Auction Adjustments resulting from the operation of this Annex and the Cash Settlement Schedule. The obligation to pay, or the right to receive, any amounts determined under this Annex may be reflected in the books and records of the Clearing House in such manner as the Clearing House determines is necessary to meet its operational requirements.

12. MISCELLANEOUS

- (a) The obligations of the Clearing House to each FCM Clearing Member shall be to perform its obligations as principal to such FCM Clearing Member in accordance with the Rulebook, but subject to the restrictions on the Clearing House's obligations and liabilities contained in the Rulebook and Section 13.
- (b) The terms of this Annex are without prejudice to the Clearing House's rights under the FCM Procedures to change the rate used for the purposes of (i) calculating the Price Alignment Amount, and (ii) constructing the Clearing House's zero coupon yield curves under 2.1.7 of the FCM Procedures from time to time and such terms shall not be relevant or binding on the Clearing House in respect of any such changes.
- (c) The performance by the Clearing House of its obligations hereunder shall always be subject to the provisions of the Rulebook.

13. LIMITATION OF LIABILITY

13.1 Without prejudice to the generality of Regulation 44, each FCM Clearing Member agrees:

- (a) that neither the Clearing House nor any other member of the LCH Group will have any liability whatsoever to any FCM Clearing Member or any other person (including, without limitation, any FCM Client) whether in contract, tort (including, without limitation, negligence), trust, as a fiduciary or under any other cause of action, and whether in respect of any damages, loss or gain, cost or expense (whether direct, indirect, general, special, consequential, punitive or otherwise); and
- (b) to waive any claim against the Clearing House or any member of the LCH Group;
arising or that may arise in connection with:
 - (i) any determination, calculation, notification, registration, publication, exercise of discretion, or decision, taken or not taken by the Clearing House or any other member of the LCH Group in connection with this Annex; or
 - (ii) the determination or publication of any price, curve, data, quote or other information arising from, or in connection with, this Annex;

except in the case of fraud or wilful misconduct on the part of the Clearing House or any other member of the LCH Group.

13.2 Without prejudice to the generality of Regulation 44 and clause 14.1 above, each FCM Clearing Member further agrees:

- (a) that neither the Clearing House nor any other member of the LCH Group will have any liability whatsoever to any FCM Clearing Member or any other person (including, without limitation, any FCM Client) in tort (including, without limitation, negligence), trust, as a fiduciary or under any other non-contractual cause of action, or under any implied contractual term, and whether in respect of any damages, loss or gain, cost or expense (whether direct, indirect, general, special, consequential, punitive or otherwise); and

(b) to waive any non-contractual claim or claim under any implied contractual term against the Clearing House or any member of the LCH Group;

arising or that may arise in connection with the Clearing House's performance of its contractual duties or obligations under this Annex, except in the case of fraud or wilful misconduct on the part of the Clearing House or any other member of the LCH Group.

13.3 Each FCM Clearing Member agrees that neither the Clearing House nor any other member of the LCH Group (i) owes any duty of care to any person in connection with the performance of the Clearing House's duties or obligations or exercise of its rights under this Annex, save for the express contractual duties set forth in this Annex; (ii) is under any obligation to research, investigate, supplement, or verify the veracity of, any price, data, quote or other information received from an FCM Clearing Member in connection with this Annex; (iii) is acting as a fiduciary for, or as an advisor to, any FCM Clearing Member or FCM Client in connection with this Annex or any FCM SwapClear Contract registered as a result of the matters specified in this Annex; (iv) shall be under any requirement to consult with, or individually notify (other than as expressly set out in this Annex), an FCM Clearing Member or FCM Client in connection with making its determinations, exercising its discretions or performing its duties or obligations or exercising its rights, each under this Annex; or (v) has made any representation, express or implied, in relation to this Annex, and each FCM Clearing Member acknowledges that it has not relied on any representations made by the Clearing House or any other member of the LCH Group in relation to this Annex.

13.4 For the avoidance of doubt, notwithstanding anything herein or in the Cash Settlement Supplement or Cash Settlement Schedule, neither the Clearing House nor any other member of the LCH Group shall be liable for any obligations of, or to any person who is not, an FCM Clearing Member.