

VIA CFTC PORTAL

Mr. Christopher Kirkpatrick
Secretary of the Commission
Office of the Secretariat
Commodity Futures Trading Commission
1155 21st Street NW
Three Lafayette Centre
Washington, DC 20581

30 December 2020

LCH Limited Self-Certification: Capping the number of ballots in service continuity

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 changes to its rules to limit the number of ballots in the service continuity stage of the Default Waterfall for SwapClear and ForexClear.

Part I: Explanation and Analysis

If a clearing member defaults, then LCH’s Default Rules, particularly Rule 15 and the provisions of the relevant service specific “Default Fund Supplement”, establish a waterfall to allocate the losses arising from the default.

During the service continuity phase of the waterfall (the last phase before service closure), losses incurred by the Defaulter’s portfolio are allocated to non-defaulting clearing members through variation margin gains haircutting. At certain defined points during this process, the Default Rules provide for a member ballot whereby the non-defaulting members are asked if they should continue to fund the defaulter’s portfolio losses. In the event of a successful ballot, an additional round of service continuity commences. If the ballot is unsuccessful, the service moves to closure including the tear-up of outstanding contracts. The ballot can currently be taken multiple times with no set limit.

LCH is proposing to introduce a cap on the number of ballots. This is to address any perception that loss allocation might continue indefinitely.

The cap on the number of ballots will be set at five per loss distribution period. This is designed to strike an appropriate balance between promoting service continuity (by avoiding a disruptive tear-up process) and allowing members to more easily quantify their maximum liability to the clearing house.

These rule changes will go live on, or after, 15 January 2021.

Part II: Description of Rule Changes

Section F9(d) of Schedule 5 (ForexClear Default Fund Supplement) and Section CS3(d) of Schedule 6 (Rates Service Default Fund Supplement) have been updated to reflect the Loss Distribution Process and notes that the Loss Distribution Trigger Amount may only be adjusted up to five times.

The text of the changes is attached hereto as:

- i. **Appendix I, Default Rules**

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 by LCH's governing board or executive committee, members of LCH or market participants that were not incorporated into the change.

Certification

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

Should you have any questions please contact me.

Yours sincerely



Julian Oliver
Chief Compliance Officer
LCH Limited

Appendix I
Default Rules

LCH The Markets'
Partner

**LCH LIMITED
DEFAULT RULES**

F9. **ForexClear Loss Distribution Process**

Where, after a Default, the Clearing House determines that the ForexClear Excess Loss resulting from the Default will exceed the amounts to be applied to it under Rules 15(a) to 15(h) of the Default Rules, the Clearing House may implement the process (the "**ForexClear Loss Distribution Process**") described in this Rule F9.

- (a) For the purposes of this Rule F9 and Rule F11, the following definitions will apply:

"Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business day, the sum of the Pre Haircut Base Currency Gains, Losses and Realised Cash Flows by Cash Payment and any Cash Gainer Base Currency Adjustment to Cash Payment or Cash Loser Base Currency Adjustment to Cash Payment.

"Auction Portfolio" has the meaning assigned to it in the ForexClear DMP Annex.

"Available Resources" means, in respect of any Loss Distribution Period, the amounts available to the Clearing House for application in meeting any loss suffered or incurred by the Clearing House in accordance with Rules 15(a) to 15(h) of the Default Rules as at the relevant Last Call Prior to Default.

"Cash Gain" means, in respect of any Cash Gainer and any Loss Distribution Day, the amount of positive Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows in respect of such Cash Gainer in respect of such Loss Distribution Day.

"Cash Gainer" means, in respect of any Loss Distribution Day, each Margin Account in respect of which the value of the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows on such Loss Distribution Day is greater than zero.

"Cash Gainer Payment Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(i) of this Rule F9.

"Cash Loser" means, in respect of any Loss Distribution Day, each Margin Account in respect of which the value of the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows on such Loss Distribution Day is equal to or less than zero.

"Cash Loser Base Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(ii) of this Rule F9.

"Cash Loser Payment Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(ii) of this Rule F9.

"Cash Payment" means, in respect of any business day, the aggregated amount which would be paid by the Clearing House to a Non-Defaulting FXCCM (expressed as a positive number) or by such FXCCM to the Clearing

House (expressed as a negative number) in respect of a Cash Payment Type in a Cash Payment Currency on such business day.

"Cash Payment Currency" means each of the currencies in which payments made between the Clearing House and an FXCCM may be denominated.

"Cash Payment Type" means each of the Price Alignment Interest (as defined in the ForexClear Procedures), Price Alignment Amount, consideration (fee) payments, Variation Settlement and cash Collateral in respect of the variation margin obligations payable in respect of a Margin Account of a Non-Defaulting FXCCM, and any payment under Section 4.1 (or, in the case of ForexClear NDF STM Contracts, Section 10.1) of the ForexClear STM Terms.

"Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows" means in respect of each Margin Account of each Non-Defaulting FXCCM and any business day, the sum of the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payments payable on such Margin Account.

"Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business day, the aggregate amount, if any, paid by the Clearing House to a Non-Defaulting FXCCM (expressed as a positive number) or by such FXCCM to the Clearing House (expressed as a negative number) in respect of Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment from but excluding the relevant Last Call Prior to Default to and including such business day.

"Cumulative LCH Transfer Cost" means, on any business day during any Loss Distribution Period, the sum of any LCH Transfer Cost for each day from but excluding the relevant Last Call Prior to Default to and including such business day.

"Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows" means, in respect of each Margin Account of each Non-Defaulting FXCCM and any business day, the sum of the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payments payable on such Margin Account.

"Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business day, the sum of the Pre Haircut Base Currency Gains, Losses and Realised Cash Flows by Cash Payment for such Cash Payment for each day from but excluding the relevant Last Call Prior to Default to and including such business day.

"**Distribution Haircut**" or "**DH**" means, on each Loss Distribution Day, the fraction determined by the Clearing House in accordance with the following formula:

$$DH(t) = LUL(t) / TCG(t)$$

where:

"**LUL**" means the LCH Uncovered Loss; and

"**TCG**" means the Total Cash Gains.

"**FXCCM Adjustment Amount**" means in respect of the Margin Account(s) of any Non-Defaulting FXCCM and any Loss Distribution Day, an amount equal to the sum of the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows in respect of such Margin Account(s) of such FXCCM less the sum of the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows in respect of such Margin Account(s) of such Clearing Member, in each case in respect of the Loss Distribution Period in which such Loss Distribution Day falls.

"**Last Call Prior to Default**" means the most recent business day prior to the day of the relevant Default on which transfers of Collateral and/or other payments required to be made by Non-Defaulting FXCCMs to the Clearing House were made in full.

"**LCH Transfer Cost**" means the cost (converted, where applicable, into USD at a rate of exchange determined by the Clearing House in its sole discretion) to the Clearing House of transferring the rights and obligations arising out of the Auction Portfolios of a Defaulting FXCCM to those FXCCMs who have successfully bid for such Auction Portfolios in Auctions.

"**LCH Uncovered Loss**" means, in respect of the Clearing House on any business day in any Loss Distribution Period, the amount calculated in accordance with the following formula:

$$LCH \text{ Uncovered Loss}(t) = \text{Max} (0, (TCPH (t) + CLC(t) - TAR))$$

where:

"**TCPH**" means the Total Cumulative Pre Haircut Base Currency Gains losses and Realised Cash Flows;

"**CLC**" means the Cumulative LCH Transfer Cost;

"**TAR**" means the Total Available Resources; and

the LCH Uncovered Loss as at the Last Call Prior to Default shall be zero.

"**Loss Distribution Cut-Off Date**" means, with respect to a Loss Distribution Period, the day falling ten (10) business days from the date of commencement

of the ForexClear Loss Distribution Process or such earlier or later business day as determined pursuant to paragraph (d) of this Rule F9.

"Loss Distribution Day" means any business day in a Loss Distribution Period on which the Clearing House, in consultation with the ForexClear DMG, prior to calling for Collateral in respect of margin or other payment in respect of settlement on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which a Default occurs with respect to an FXCCM to (but excluding) the earlier of: (i) the business day on which (a) the rights and obligations arising out of the Auction Portfolios of the Defaulting FXCCM are transferred to those FXCCMs which have successfully bid for such Auction Portfolios in Auctions, or, if any Default occurs with respect to any other FXCCM prior to the end of a Loss Distribution Period, the rights and obligations arising out of the Auction Portfolios of any subsequent Defaulting FXCCM are transferred to those FXCCMs who have successfully bid for such Auction Portfolios in Auctions and (b) all payments required to be made by such FXCCMs and/or the Clearing House in respect of such Auction(s) have been made in full; or (ii) any business day on which the Clearing House determines that a Loss Distribution Trigger Event has occurred; PROVIDED THAT, in each case, the Loss Distribution Period shall not extend beyond the Loss Distribution Cut-Off Date.

"Loss Distribution Trigger Amount" means, in respect of any Loss Distribution Period and any Non-Defaulting FXCCM, an amount equal to either (i) twice the ForexClear Contribution of such Non-Defaulting FXCCM as at the last ForexClear Determination Date prior to the date when the Default occurred at the beginning of that Loss Distribution Period or \$200 million, whichever is the greater; or (ii) an amount as approved by the Requisite Non-Defaulting FXCCMs following a Revised Loss Distribution Proposal as described in paragraph (d) of this Rule F9.

"Loss Distribution Trigger Event" means, with respect to a Non-Defaulting FXCCM, the aggregate Cash Gainer Payment Currency Adjustments applied to Cash Payments during the Loss Distribution Period (as amended from time to time) exceeded that FXCCM's Loss Distribution Trigger Amount (as amended from time to time) on the immediately preceding Loss Distribution Day.

"Margin Account" means each Proprietary Account, Individual Segregated Account, Indirect Gross Sub-Account, Omnibus Segregated Account and FCM Client Sub-Account related to the ForexClear Service of an FXCCM.

"Payment Currency Adjustment to Cash Payment" means one or more Cash Gainer Payment Currency Adjustment to Cash Payment(s) and/or one or more Cash Loser Payment Currency Adjustment to Cash Payment(s).

"Pre Haircut Base Currency Gains, Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business

day, the amount (converted, where applicable, into USD at the Rate of Exchange) which would be paid by the Clearing House to a Non-Defaulting FXCCM (expressed as a positive number) or by such FXCCM to the Clearing House (expressed as a negative number) on such business day in the absence of the application of the Distribution Haircut.

"Rate of Exchange" means, for any day, the applicable rate of exchange for converting one currency into another as determined by the Clearing House by reference to Reuters.

"Requisite Non-Defaulting FXCCMs" means on any business day in a Loss Distribution Period, Non-Defaulting FXCCMs whose ForexClear Contributions represented 75% or more of the total size of the ForexClear Fund Amount (less the Contribution of any Defaulter(s)) as at the last ForexClear Determination Date prior to the date when the Default occurred.

"t" means, in respect of any determination made in relation to a business day, such business day.

"t-1" means, in respect of any determination made in relation to a business day, the business day immediately prior to such business day.

"Total Available Resources" means, on any business day during a Loss Distribution Period the sum of (i) the Available Resources and (ii) any Unfunded Contributions deposited with the Clearing House since the relevant Last Call Prior to Default.

"Total Cash Gains" means, in respect of any business day, the sum of the Cash Gain in respect of all Cash Gainers on such business day.

"Total Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows" means, in respect of any business day the sum of all Total Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payments.

"Total Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment" means, in respect of any business day, the sum of the Total Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment for each business day from but excluding the relevant Last Call Prior to Default to and including such business day.

"Total Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment" means, in respect of any business day, the sum of the Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment in respect of all Margin Accounts of all Non-Defaulting SCMs on such business day.

"Underlying Cash Payment" means, in respect of a Cash Gainer Base Currency Adjustment to Cash Payment or a Cash Loser Base Currency Adjustment to Cash Payment, the Cash Payment in respect of which such

Cash Gainer Base Currency Adjustment to Cash Payment or Cash Loser Base Currency Adjustment to Cash Payment is calculated.

(b) ***Adjustment of Underlying Cash Payments***

(i) *Cash Gainer*

On each Loss Distribution Day for each Margin Account of each Non-Defaulting FXCCM which is deemed to be a Cash Gainer, the relevant FXCCM shall be required to pay the Clearing House an amount equal to each positive amount determined as follows or, as applicable, the Clearing House shall be required to pay the relevant FXCCM the absolute value of each negative amount determined as follows (in each case, such amount the "**Cash Gainer Payment Currency Adjustment to Cash Payment**"): the Cash Gainer Payment Currency Adjustment to Cash Payment is the value of the amount determined in accordance with the formula below (the "**Cash Gainer Base Currency Adjustment to Cash Payment**") converted at the Rate of Exchange into the Cash Payment Currency in which the relevant Underlying Cash Payment is denominated:

where:

$$\text{Cash Gainer Base Currency Adjustment to Cash Payment (t)} = \text{PHG(t)} - (\text{CHG(t)} * \text{Max}(0, 1 - \text{DH(t)}) - \text{CAG(t)} - 1)$$

"**PHG**" means the Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment;

"**CHG**" means the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment;

"**DH**" means the Distribution Haircut; and

"**CAG**" means the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment and where "CAG" as at the Last Call Prior to Default shall be zero.

(ii) *Cash Loser*

On each Loss Distribution Day for each Margin Account of each Non-Defaulting FXCCM which is deemed to be a Cash Loser, the Clearing House shall be required to pay the absolute value of each amount (the "**Cash Loser Payment Currency Adjustment to Cash Payment**") determined as follows: the Cash Loser Payment Currency Adjustment to Cash Payment is the value of the amount determined in accordance with the formula below (the "**Cash Loser Base Currency Adjustment to Cash Payment**") converted at the Rate of Exchange into the Cash Payment Currency in which the relevant Underlying Cash Payment is denominated:

where

$$\begin{aligned} & \text{Cash Loser Base Currency Adjustment to Cash Payment}(t) \\ & = \text{PHG}(t) - (\text{CHG}(t) - \text{CAG}(t - 1)) \end{aligned}$$

"**PHG**" Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment;

"**CHG**" means the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment; and

"**CAG**" means the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment and where "CAG" as at the Last Call Prior to Default shall be zero.

(iii) *Application of Payment Currency Adjustment to Cash Payment*

On each Loss Distribution Day, the Clearing House shall apply the payment or receipt of any Payment Currency Adjustment to Cash Payment as an offset against any payments denominated in the same Cash Payment Currency as the relevant Payment Currency Adjustment to Cash Payment due from or receivable by the relevant FXCCM.

(c) *Application of Cash Gainer Payment Currency Adjustment to Cash Payment*

The Clearing House shall apply all payments it receives in respect of Cash Gainer Payment Currency Adjustment to Cash Payments solely for the purposes of meeting any loss incurred by the Clearing House following, and in relation to, each Default, as contemplated in accordance with Rules 15(a) to 15(h) of the Default Rules.

(d) *Adjustment to Loss Distribution Trigger Amount and Loss Distribution Cut-Off Date*

(i) On each business day following the commencement of the ForexClear Loss Distribution Process (except where the Clearing House is unable to make a determination due to a systems failure or similar event beyond the Clearing House's control), the Clearing House shall determine if a Loss Distribution Trigger Event has occurred or is likely to occur and, if so, shall notify all FXCCMs accordingly.

(ii) If, at any time during a Loss Distribution Period, the Clearing House determines that (A) the ForexClear Loss Distribution Process is likely to extend beyond the Loss Distribution Cut-Off Date or (B) a Loss Distribution Trigger Event is likely to occur, the Clearing House may propose to the Non-Defaulting FXCCMs (I) an extension of up to 10 business days, from the date of such proposal, to the Loss Distribution Cut-Off Date and (II) an increase in each Non-Defaulting FXCCM's Loss Distribution Trigger Amount of (X) up to twice the ForexClear Contribution of such Non-Defaulting FXCCM as at the last ForexClear Determination Date prior to the date when the Default occurred or (Y)

\$200 million, whichever is the greater (any proposal pursuant to (I) or (II) above, a “Revised Loss Distribution Proposal”). For the avoidance of doubt, the Clearing House shall propose adjustments to both the Loss Distribution Cut-Off Date and Non-Defaulting FXCCMs’ Loss Distribution Trigger Amount in a Revised Loss Distribution Proposal, regardless of whether the trigger for such Revised Loss Distribution Proposal is (A) or (B) above.

~~(ii)~~(iii) Subject to (iv) below, the Clearing House shall be required to make a Revised Loss Distribution Proposal where either (y) it makes the determination pursuant to (A) above on the Loss Distribution Cut-Off Date or (z) ~~:-~~a Loss Distribution Trigger Event has occurred, in each case during a Loss Distribution Period.

~~(iii)~~ — the ForexClear Loss Distribution Process is likely to extend beyond the Loss Distribution Cut Off Date, the Clearing House may (or, where such determination is made on the Loss Distribution Cut Off Date, the Clearing House shall on the same business day) propose to the Non-Defaulting FXCCMs an extension of up to 10 business days, from the date of such proposal, to the Loss Distribution Cut-Off Date; and/or

~~(iv)~~ — a Loss Distribution Trigger Event is likely to occur, the Clearing House may (or, where a Loss Distribution Trigger Event has occurred, the Clearing House shall on the same business day) propose to the Non-Defaulting FXCCMs an increase in each Non-Defaulting FXCCM’s Loss Distribution Trigger Amount of up to twice the ForexClear Contribution of such Non-Defaulting FXCCM as at the last ForexClear Determination Date prior to the date when the Default occurred or \$200 million, whichever is the greater,

~~(v)~~ — any proposal under (A) and/or (B) above, a “Revised Loss Distribution Proposal”.

~~(vi)~~(iv) If (x) more than 50% of the Non-Defaulting FXCCMs participate in a vote concerning the Revised Loss Distribution Proposal and (y) the Requisite Non-Defaulting FXCCMs vote in favour of the Revised Loss Distribution Proposal, the Loss Distribution Cut-Off Date shall be extended and/or the Loss Distribution Trigger Amount shall be increased ~~(as applicable)~~ for each Non-Defaulting FXCCM in accordance with the Revised Loss Distribution Proposal and shall be applicable for the remainder of the relevant Loss Distribution Period or until further adjusted pursuant to this paragraph ~~(d)(i)~~. If more than 50% of Non-Defaulting FXCCMs do not participate in such vote and/or if the Requisite Non-Defaulting FXCCMs do not vote in favour of the Revised Loss Distribution Proposal, the Loss Distribution Period shall not be extended and the Loss Distribution Trigger Amount shall not be increased in accordance with the Revised Loss Distribution Proposal. ~~For the avoidance of doubt, the~~The Loss Distribution Cut-Off Date and Loss Distribution Trigger Amount may only be adjusted up to five times ~~one or more times~~ in respect ~~of a single Default~~the

Loss Distribution Period in accordance with the processes set forth in
pursuant to this paragraph ~~(d)~~.

~~(vii)~~(v) The Clearing House shall publish the terms of the voting process for the purposes of this paragraph (d) on or before the business day on which such vote is to be held.

(e) ***No Rebate***

The payment to the Clearing House by any FXCCM of any Cash Gainer Payment Currency Adjustment to Cash Payment shall be final and shall not give rise to any obligation of the Clearing House to repay any such amount or to pay any interest thereon.

F10. Where, after the Default of one or more FXCCMs, the Clearing House determines in its sole discretion that, notwithstanding the availability of any resources remaining under Rules 15(a) to 15(h) of the Default Rules and the availability of the ForexClear Loss Distribution Process in accordance with the terms of Rule F9, it is clear that the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of those ForexClear Contracts to which it is party with Non-Defaulting FXCCMs, the Clearing House will by notice in writing (a "**ForexClear Voluntary Payment Notice**"): (i) inform all Non-Defaulting FXCCMs that it has insufficient resources and that it is likely to invoke Rule F11; and (ii) invite each Non-Defaulting FXCCM to make a payment of funds (a "**ForexClear Voluntary Payment**"), in accordance with Rule (15h) of the Default Rules, to make up for the relevant shortfall.

ForexClear Voluntary Payments will be made on the following terms:

- (a) no FXCCM shall be obliged to make a ForexClear Voluntary Payment;
- (b) any ForexClear Voluntary Payment will be made by an FXCCM by the close of business on the business day after receipt of the relevant ForexClear Voluntary Payment Notice;
- (c) no ForexClear Voluntary Payment may be withdrawn once made; and
- (d) the Clearing House shall have full discretion whether or not to accept a particular ForexClear Voluntary Payment.

Any failure by the Clearing House to deliver a ForexClear Voluntary Payment Notice pursuant to this Rule F10 will not invalidate any action taken by the Clearing House pursuant to Rule F11 nor give rise to any liability whatsoever on the part of the Clearing House.

Any ForexClear Voluntary Payments remaining unused at the time of the expiry of the relevant ForexClear Default Period will be accounted for rateably by the Clearing House as if they were amounts paid in respect of the ForexClear Contributions by those FXCCMs from whom ForexClear Voluntary Payments were accepted.

F11. Where, following the process for inviting ForexClear Voluntary Payments in accordance with Rule F10, the Clearing House makes a determination (an

CS3. **Contributions to the Rates Service Fund**

A Rates Service Clearing Member's Contributions to the Rates Service Default Fund shall be calculated in accordance with Part A of this Rates Service Fund Supplement (in respect of SwapClear Contributions) and Part B of this Rates Service Fund Supplement (in respect of Listed Interest Rates Contributions) (as applicable).

CS4. **Rates Service Loss Distribution Process**

Where, after a Default, the Clearing House determines that the Rates Service Excess Loss resulting from the Default will exceed the amounts to be applied to it under Rules 15(a) to 15(g) of the Default Rules, the Clearing House may implement the process (the "**Rates Service Loss Distribution Process**") described in this Rule CS4.

- (a) For the purposes of this Rule CS4 and for Rule CS5 the following definitions will apply:

"Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business day, the sum of the Pre Haircut Base Currency Gains, Losses and Realised Cash Flows by Cash Payment and any Cash Gainer Base Currency Adjustment to Cash Payment or Cash Loser Base Currency Adjustment to Cash Payment.

"Auction Portfolio" has the meaning assigned to it in the Rates Service DMP Annex.

"Available Resources" means, in respect of any Loss Distribution Period, the amounts available to the Clearing House for application in meeting any loss suffered or incurred by the Clearing House in accordance with Rules 15(a) to 15(g) of the Default Rules as at the relevant Last Call Prior to Default.

"Cash Gain" means, in respect of any Cash Gainer and any Loss Distribution Day, the amount of positive Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows in respect of such Cash Gainer in respect of such Loss Distribution Day.

"Cash Gainer" means, in respect of any Loss Distribution Day, each Margin Account in respect of which the value of the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows on such Loss Distribution Day is greater than zero.

"Cash Gainer Base Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(i) of this Rule CS4.

"Cash Gainer Payment Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(i) of this Rule CS4.

"Cash Loser" means, in respect of any Loss Distribution Day, each Margin Account in respect of which the value of the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows on such Loss Distribution Day is equal to or less than zero.

"Cash Loser Base Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(ii) of this Rule CS4.

"Cash Loser Payment Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(ii) of this Rule CS4.

"Cash Payment" means, in respect of any business day, the aggregated amount which would be paid by the Clearing House to a Non-Defaulting Rates Service Clearing Member (expressed as a positive number) or by such Rates Service Clearing Member to the Clearing House (expressed as a negative number) in respect of a Cash Payment Type in a Cash Payment Currency on such business day.

"Cash Payment Currency" means each of the 17 currencies in which payments made between the Clearing House and an SCM may be denominated.

"Cash Payment Type" means each of (i) the Price Alignment Amount, Price Alignment Interest, coupon payments, consideration (fee) payments and cash Collateral in respect of the variation margin obligations payable in respect of a Margin Account relating to the SwapClear Business of a Non-Defaulting Rates Service Clearing Member; and (ii) consideration (fee) payments, payments under Section 4.1 of the SwapClear STM Terms, daily settlement amounts and Variation Settlement payable in respect of a Margin Account relating to the Listed Interest Rates Business of a Non-Defaulting Rates Service Clearing Member.

"Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows" means in respect of each Margin Account of each Non-Defaulting Rates Service Clearing Member and any business day, the sum of the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payments payable on such Margin Account.

"Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business day, the aggregate amount, if any, paid by the Clearing House to a Non-Defaulting Rates Service Clearing Member (expressed as a positive number) or by such Rates Service Clearing Member to the Clearing House (expressed as a negative number) in respect of Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment from but excluding the relevant Last Call Prior to Default to and including such business day.

"Cumulative LCH Transfer Cost" means, on any business day during any Loss Distribution Period, the sum of any LCH Transfer Cost for each day from but excluding the relevant Last Call Prior to Default to and including such business day.

"Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows" means, in respect of each Margin Account of each Non-Defaulting Rates Service Clearing Member and any business day, the sum of the

Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payments payable on such Margin Account.

"Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business day, the sum of the Pre Haircut Base Currency Gains, Losses and Realised Cash Flows by Cash Payment for such Cash Payment for each day from but excluding the relevant Last Call Prior to Default to and including such business day.

"Distribution Haircut" or **"DH"** means, on each Loss Distribution Day, the fraction determined by the Clearing House in accordance with the following formula:

$$DH(t) = LUL(t) / TCG(t)$$

where:

"LUL" means the LCH Uncovered Loss; and

"TCG" means the Total Cash Gains.

"Exchange Closed-out Loss" means the loss (converted, where applicable, into pounds sterling at the Rate of Exchange) to the Clearing House associated with the Exchange Closed-out Contracts of a Defaulting Listed Interest Rates Clearing Member.

"Last Call Prior to Default" means the most recent business day prior to the day of the relevant Default on which transfers of Collateral and/or other payments required to be made by Non-Defaulting Rates Service Clearing Members to the Clearing House were made in full.

"LCH Transfer Cost" means the cost (converted, where applicable, into pounds sterling at the Rate of Exchange) to the Clearing House of transferring the rights and obligations arising out of the Auction Portfolios of a Defaulting SCM to those SCMs who have successfully bid for such Auction Portfolios in Auctions.

"LCH Uncovered Loss" means, in respect of the Clearing House on any business day in any Loss Distribution Period, the amount calculated in accordance with the following formula:

$$LCH \text{ Uncovered Loss}(t) = \text{Max} (0, (TCPH (t) + CLC(t) + ECL(t) - TAR))$$

where:

"TCPH" means the Total Cumulative Pre Haircut Base Currency Gains losses and Realised Cash Flows;

"CLC" means the Cumulative LCH Transfer Cost;

"ECL" means the Exchange Closed-out Loss;

"**TAR**" means the Total Available Resources; and

the LCH Uncovered Loss as at the Last Call Prior to Default shall be zero.

"**Loss Distribution Cut-Off Date**" means, with respect to a Loss Distribution Period the day falling ten (10) business days from the date of commencement of the Rates Service Loss Distribution Process or such earlier or later business day as determined pursuant to paragraph (d) of this Rule CS4.

"**Loss Distribution Day**" means any business day in a Loss Distribution Period on which the Clearing House, in consultation with the Rates Service DMG, prior to calling for Collateral in respect of margin or other payment in respect of settlement on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"**Loss Distribution Period**" means the period from, but excluding, the day on which a Default occurs with respect to a Rates Service Clearing Member to but excluding, the earlier of: (i) (A) in the case of a Defaulting Rates Service Clearing Member who is an SCM, the business day on which (a) the rights and obligations arising out of the Auction Portfolios of the Defaulting SCM are transferred to those SCMs which have successfully bid for such Auction Portfolios in Auctions, or, if any Default occurs with respect to any other SCM prior to the end of a Loss Distribution Period, the rights and obligations arising out of the Auction Portfolios of any subsequent Defaulting SCM are transferred to those SCMs who have successfully bid for such Auction Portfolios in Auctions and (b) all payments required to be made by such SCMs and/or the Clearing House in respect of such Auction(s) have been made in full; or (B) in the case of a Defaulter who is a Listed Interest Rates Clearing Member but not an SCM, the business day on which the Clearing House has taken such action as it considers to be required to extinguish or transfer the rights and obligations of such a Defaulter; and (ii) any business day on which the Clearing House determines that a Loss Distribution Trigger Event has occurred, PROVIDED THAT, in each case, the Loss Distribution Period shall not extend beyond the Loss Distribution Cut-Off Date.

"**Loss Distribution Trigger Amount**" means, in respect of any Loss Distribution Period and any Non-Defaulting Rates Service Clearing Member, an amount equal to either (i) twice the Rates Service Contribution of such Non-Defaulting Rates Service Clearing Member as at the last Rates Service Determination Date prior to the date when the Default occurred at the beginning of that Loss Distribution Period or £200 million, whichever is the greater; or (ii) an amount as approved by the Requisite Non-Defaulting Rates Service Clearing Members following a Revised Loss Distribution Proposal as described in paragraph (d) of this Rule CS4.

"**Loss Distribution Trigger Event**" means, with respect to a Non-Defaulting Rates Service Clearing Member, the aggregate Cash Gainer Payment Currency Adjustments applied to Cash Payments during the Loss Distribution Period (as amended from time to time) exceeded that Rates Service Clearing Member's Loss Distribution Trigger Amount (as amended from time to time) on the immediately preceding Loss Distribution Day.

"Margin Account" means: (i) for a Rates Service Clearing Member, each Proprietary Account, Individual Segregated Account, Indirect Gross Sub-Account, Custodial Segregated Account, Non-Identified Client Omnibus Net Segregated Account, Affiliated Client Omnibus Net Segregated Account, Identified Client Omnibus Net Segregated Account and Omnibus Gross Segregated Sub-Account; and (ii) for each FCM Rates Clearing Member, the Proprietary Account and each FCM Client Omnibus Account with LCH (provided that, in respect of an FCM Omnibus Client Swaps Account with LCH, this term refers to each FCM Client Sub-Account contained therein).

"Omnibus Gross Segregated Sub-Account" means the sub-account allocated to each individual Omnibus Gross Segregated Clearing Client or each set of Combined Omnibus Gross Segregated Clearing Clients within an Omnibus Gross Segregated Account for the purposes of recording SwapClear Contracts referable to each such individual client or group of clients.

"Payment Currency Adjustment to Cash Payment" means one or more Cash Gainer Payment Currency Adjustment to Cash Payment(s) and/or one or more Cash Loser Payment Currency Adjustment to Cash Payment(s).

"Pre Haircut Base Currency Gains, Losses and Realised Cash Flows by Cash Payment" means, in respect of each Cash Payment and any business day, the amount (converted, where applicable, into pounds sterling at the Rate of Exchange) which would be paid by the Clearing House to a Non-Defaulting Rates Service Clearing Member (expressed as a positive number) or by such Rates Service Clearing Member to the Clearing House (expressed as a negative number) on such business day in the absence of the application of the Distribution Haircut.

"Rate of Exchange" means, for any day, the applicable rate of exchange for converting one currency into another as determined by the Clearing House by reference to Reuters.

"Rates Service Adjustment Amount" means in respect of the Margin Account(s) of any Non-Defaulting Rates Service Clearing Member and any Loss Distribution Day, an amount equal to the sum of the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows in respect of such Margin Account(s) of such Rates Service Clearing Member less the sum of the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows in respect of such Margin Account(s) of such Rates Service Clearing Member, in each case in respect of the Loss Distribution Period in which such Loss Distribution Day falls.

"Requisite Non-Defaulting Rates Service Clearing Members" means on any business day in a Loss Distribution Period, Non-Defaulting Rates Service Clearing Members whose Rates Service Contributions represented 75% or more of the total size of the Rates Service Fund Amount (less the Contribution of any Defaulter(s)) as of the last Rates Service Determination Date prior to the date when the Default occurred.

"t" means, in respect of any determination made in relation to a business day, such business day.

"t-1" means, in respect of any determination made in relation to a business day, the business day immediately prior to such business day.

"**Total Available Resources**" means, on any business day during a Loss Distribution Period the sum of (i) the Available Resources and (ii) any Unfunded Contributions deposited with the Clearing House since the relevant Last Call Prior to Default.

"**Total Cash Gains**" means, in respect of any business day, the sum of the Cash Gain in respect of all Cash Gainers on such business day.

"**Total Cumulative Pre Haircut Base Currency Gains losses and Realised Cash Flows**" means, in respect of any business day the sum of all Total Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payments.

"**Total Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment**" means, in respect of any business day, the sum of the Total Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment for each business day from but excluding the relevant Last Call Prior to Default to and including such business day.

"**Total Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment**" means, in respect of any business day, the sum of the Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment in respect of all Margin Accounts of all Non-Defaulting Rates Service Clearing Members on such business day.

"**Underlying Cash Payment**" means, in respect of a Cash Gainer Base Currency Adjustment to Cash Payment or a Cash Loser Base Currency Adjustment to Cash Payment, the Cash Payment in respect of which such Cash Gainer Base Currency Adjustment to Cash Payment or Cash Loser Base Currency Adjustment to Cash Payment is calculated.

(b) **Adjustment of Underlying Cash Payments**

(i) *Cash Gainer*

On each Loss Distribution Day for each Margin Account of each Non-Defaulting Rates Service Clearing Member which is deemed to be a Cash Gainer, the relevant Rates Service Clearing Member shall be required to pay the Clearing House an amount equal to each positive amount determined as follows or, as applicable, the Clearing House shall be required to pay the relevant Rates Service Clearing Member the absolute value of each negative amount determined as follows (in each case, such amount the "**Cash Gainer Payment Currency Adjustment to Cash Payment**"):

the Cash Gainer Payment Currency Adjustment to Cash Payment is the value of the amount determined in accordance with the formula below (the "**Cash Gainer Base Currency Adjustment to Cash Payment**") converted at the Rate of Exchange into the Cash Payment Currency in which the relevant Underlying Cash Payment is denominated,

where:

$$\text{Cash Gainer Base Currency Adjustment to Cash Payment (t)} = \text{PHG(t)} - (\text{CHG(t)} * \text{Max (0, 1 - DH(t))} - \text{CAG(t - 1)})$$

"**PHG**" means the Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment;

"**CHG**" means the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment;

"**DH**" means the Distribution Haircut; and

"**CAG**" means the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment and where "CAG" as at the Last Call Prior to Default shall be zero.

(ii) *Cash Loser*

On each Loss Distribution Day for each Margin Account of each Non-Defaulting Rates Service Clearing Member which is deemed to be a Cash Loser, the Clearing House shall be required to pay the absolute value of each amount (the "**Cash Loser Payment Currency Adjustment to Cash Payment**") determined as follows:

the Cash Loser Payment Currency Adjustment to Cash Payment is the value of the amount determined in accordance with the formula below (the "**Cash Loser Base Currency Adjustment to Cash Payment**") converted at the Rate of Exchange into the Cash Payment Currency in which the relevant Underlying Cash Payment is denominated,

where:

$$\text{Cash Loser Base Currency Adjustment to Cash Payment(t)} = \text{PHG(t)} - (\text{CHG(t)} - \text{CAG(t - 1)})$$

"**PHG**" Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment;

"**CHG**" means the Cumulative Pre Haircut Base Currency Gains Losses and Realised Cash Flows by Cash Payment; and

"**CAG**" means the Cumulative Actual Base Currency Gains, Losses and Realised Cash Flows by Cash Payment and where "CAG" as at the Last Call Prior to Default shall be zero.

(iii) *Application of Payment Currency Adjustment to Cash Payment*

On each Loss Distribution Day, the Clearing House shall apply the payment or receipt of any Payment Currency Adjustment to Cash Payment as an offset against any payments denominated in the same Cash Payment Currency as the relevant Payment Currency Adjustment to Cash Payment due from or receivable by the relevant Rates Service Clearing Member.

(iv) *Adjustment for exchange of Notional Amounts on maturity*

If an exchange of notional amounts is applicable to any SwapClear Contract on any business day during a Loss Distribution Period, the Clearing House may, following consultation with its risk committee or the Rates Service DMG, as appropriate, make such adjustments as are necessary to the calculation of a Payment Currency Adjustment to Cash Payment to reflect the payment flows arising from such exchange of notional amounts, keeping in mind the principle that the calculation of a Payment Currency Adjustment to Cash Payment is designed to capture all profits and/or losses on positions during the relevant Loss Distribution Period.

(c) *Application of Cash Gainer Payment Currency Adjustment to Cash Payment*

The Clearing House shall apply all payments it receives in respect of Cash Gainer Payment Currency Adjustment to Cash Payments solely for the purposes of meeting any loss incurred by the Clearing House following, and in relation to, each Default, as contemplated in accordance with Rules 15(a) to 15(h) of the Default Rules.

(d) *Adjustment to Loss Distribution Trigger Amount and Loss Distribution Cut-Off Date*

(i) On each business day following the commencement of the Rates Service Loss Distribution Process (except where the Clearing House is unable to make a determination due to a systems failure or similar event beyond the Clearing House's control), the Clearing House shall determine if a Loss Distribution Trigger Event has occurred or is likely to occur and, if so, shall notify all Rates Service Clearing Members accordingly.

(ii) If, at any time during a Loss Distribution Period, the Clearing House determines that (A) the Rates Service Loss Distribution Process is likely to extend beyond the Loss Distribution Cut-Off Date or (B) a Loss Distribution Trigger Event is likely to occur, the Clearing House may propose to the Non-Defaulting Rates Service Clearing Members (I) an extension of up to 10 business days, from the date of such proposal, to the Loss Distribution Cut-Off Date and (II) an increase in each Non-Defaulting Rates Service Clearing Member's Loss Distribution Trigger Amount of (X) up to twice the Rates Service Contribution of such Non-Defaulting Rates Service Clearing Member

as at the last Rates Service Determination Date prior to the date when the Default occurred or (Y) £200 million, whichever is the greater (any proposal pursuant to (I) or (II) above, a “**Revised Loss Distribution Proposal**”). For the avoidance of doubt, the Clearing House shall propose adjustments to both the Loss Distribution Cut-Off Date and Non-Defaulting Rates Service Clearing Members’ Loss Distribution Trigger Amount in a Revised Loss Distribution Proposal, regardless of whether the trigger for such Revised Loss Distribution Proposal is (A) or (B) above.

(iii) Subject to (iv) below, the Clearing House shall be required to make a Revised Loss Distribution Proposal where either (y) it makes the determination pursuant to (A) above on the Loss Distribution Cut-Off Date or (z) a Loss Distribution Trigger Event has occurred, in each case during a Loss Distribution Period.

~~(A) the Rates Service Loss Distribution Process is likely to extend beyond the Loss Distribution Cut Off Date, the Clearing House may (or, where such determination is made on the Loss Distribution Cut-Off Date, the Clearing House shall on the same business day) propose to the Non-Defaulting Rates Service Clearing Members an extension of up to 10 business days, from the date of such proposal, to the Loss Distribution Cut-Off Date; and/or~~

~~(B) a Loss Distribution Trigger Event is likely to occur, the Clearing House may (or, where a Loss Distribution Trigger Event has occurred, the Clearing House shall on the same business day) propose to the Non-Defaulting Rates Service Clearing Members an increase in each Non-Defaulting Rates Service Clearing Member’s Loss Distribution Trigger Amount of up to twice the Rates Service Contribution of such Non-Defaulting Rates Service Clearing Member as at the last Rates Service Determination Date prior to the date when the Default occurred or £200 million, whichever is the greater,~~

~~any proposal under (A) and/or (B) above, a “**Revised Loss Distribution Proposal**”.~~

(iv) If (x) more than 50% of the Non-Defaulting Rates Service Clearing Members participate in a vote concerning the Revised Loss Distribution Proposal and (y) the Requisite Non-Defaulting Rates Service Clearing Members vote in favour of the Revised Loss Distribution Proposal, the Loss Distribution Cut-Off Date shall be extended and/or the Loss Distribution Trigger Amount shall be increased ~~(as applicable)~~ for each Non-Defaulting Rates Service Clearing Member in accordance with the Revised Loss Distribution Proposal and shall be applicable for the remainder of the relevant Loss Distribution Period or until further adjusted pursuant to this paragraph ~~(d)(i)~~. If more than 50% of Non-Defaulting Rates Service Clearing

Members do not participate in such vote and/or if the Requisite Non-Defaulting Rates Service Clearing Members do not vote in favour of the Revised Loss Distribution Proposal, the Loss Distribution Period shall not be extended and the Loss Distribution Trigger Amount shall not be increased in accordance with the Revised Loss Distribution Proposal. ~~For the avoidance of doubt, the~~The Loss Distribution Cut-Off Date and Loss Distribution Trigger Amount may only be adjusted ~~one or more~~ up to five times in respect of ~~a single Default~~the Loss Distribution Period in accordance with the processes set forth in pursuant to this paragraph (d)(i).

~~(i)(v)~~ The Clearing House shall publish the terms of the voting process for the purposes of this paragraph (d) on or before the business day on which such vote is to be held.

~~(b)~~(e) *No Rebate*

The payment to the Clearing House by any Rates Service Clearing Member of any Cash Gainer Payment Currency Adjustment to Cash Payment shall be final and shall not give rise to any obligation of the Clearing House to repay any such amount or to pay any interest thereon.

CS5. **Voluntary Payments**

Where, after the Default of one or more Rates Service Clearing Members, the Clearing House determines in its sole discretion that, notwithstanding the availability of any resources remaining under Rules 15(a) to 15(h) of the Default Rules and the availability of the Rates Service Loss Distribution Process in accordance with the terms of Rule CS4, it is clear that the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of those Rates Service Contracts to which it is party with Non-Defaulting Rates Service Clearing Members, the Clearing House will by notice in writing (a "**Rates Service Voluntary Payment Notice**"): (i) inform all Non-Defaulting Rates Service Clearing Members that it has insufficient resources and that it is likely to invoke Rule CS5; and (ii) invite each Non-Defaulting Rates Service Clearing Member to make a payment of funds (a "**Rates Service Voluntary Payment**"), in accordance with Rule 15(h) of the Default Rules, to make up for the relevant shortfall.

Rates Service Voluntary Payments will be made on the following terms:

- (a) no Rates Service Clearing Member shall be obliged to make a Rates Service Voluntary Payment;
- (b) any Rates Service Voluntary Payment will be made by a Rates Service Clearing Member by the close of business on the business day after receipt of the relevant Rates Service Voluntary Payment Notice;
- (c) no Rates Service Voluntary Payment may be withdrawn once made; and