

VIA CFTC PORTAL

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

21 April 2020

**LCH Limited Self-Certification: Clarification Change on Default Fund Additional Margin for the SwapClear and ForexClear Services**

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 amendments to its rules concerning the Default Fund Additional Margin (“DFAM”) charged to Clearing Members of the SwapClear and ForexClear services.

**Part I: Explanation and Analysis**

DFAM is a margin add-on which supplements the Initial Margin (“IM”) that the SwapClear and ForexClear services charge to Clearing Members and aims to preserve the ‘defaulter pays’ principle. The intention of this margin add-on is to prevent a large concentrated position of a single Clearing Member of LCH driving up the default fund contributions for all other Clearing Members.

The clearing services calculate a Clearing Member’s aggregate Stress Loss Over Initial Margin (STLOIM); the amount of STLOIM that is greater than 45% of the service’s Default Fund will be charged to such Clearing Member in the form of DFAM. This threshold, and therefore the need to call DFAM, is monitored by each service on a daily and monthly basis. The monthly DFAM is calculated at month end, when the default fund size for each service is calibrated and is charged to the largest Clearing Members’ groups whose scenario exposure (net of IM) is greater than 45% of the default fund size. The daily DFAM is calculated daily and LCH will charge it to the Clearing Members whose spot scenario exceeds the 45% threshold; this is repaid to such Clearing Members as their exposure reduces.

The Rulebook already contains provisions which allow LCH to charge DFAM. The proposed rule changes make these rights clearer and clarify that, whenever a Clearing Member is charged DFAM, it will be recorded in the Proprietary Account of that Clearing Member. The rule changes also note that

the methodology to calculate DFAM is made available to Clearing Members on the Secure Area of the LCH website.

The rule changes will go live on, or after, 7 May, 2020.

## Part II: Description of Rule Changes

Equivalent wording to describe the changes above been made to the respective sections titled “Default Fund Additional Margin” of the following parts of the Rulebook:

### FCM Procedures:

- section 2.1 (SwapClear), 2.1.9 paragraph (e)
- section 2.2 (ForexClear), 2.2.11 paragraph (d)

### Procedures Section 2C (“SwapClear Clearing Service”)

- section 1.9.6

### Procedures Section 2I (“ForexClear Clearing Service”)

- section 1.5.6, paragraph (f)

The texts of the changes are attached hereto as:

- **Appendix I:** FCM Procedures
- **Appendix II:** Procedures Section 2C
- **Appendix III:** Procedures Section 2I

## Part III: Core Principles 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 including Principle L (Public information) by having a clearer set of rules and procedures.

## 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:

<http://www.lch.com/rules-regulations/proposed-rules-changes>

## 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.

## 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 there under.

Should you have any questions please contact me at [julian.oliver@lch.com](mailto:julian.oliver@lch.com).

Yours sincerely

P.P. 

Julian Oliver  
Chief Compliance Officer  
LCH Limited

Appendix I:  
FCM Procedures



**FCM PROCEDURES OF THE CLEARING HOUSE**

**LCH LIMITED**

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## 2. PRODUCT-SPECIFIC PROCEDURES

Section 2 of these FCM Procedures contains certain requirements and procedures that are specific to individual Products cleared by the Clearing House. The clearing of FCM SwapClear Contracts is discussed in Section 2.1, the clearing of FCM ForexClear Contracts is discussed in Section 2.2 and the clearing of FCM Listed Interest Rates Contracts is discussed in Section 2.3.

The use of words such as “margin”, “margin account”, “margin call” and “margin run”, which are used to reflect terminology commonly used by the Clearing House, shall not be deemed to affect the intent of the Clearing House, any FCM Clearing Member or any FCM Client as to the legal characterization of transfers of Settlement Payments, Variation Settlement, Price Alignment Amount, daily settlement amounts or other similar amounts.

### 2.1 SWAPCLEAR

#### 2.1.1 *The Clearing Process*

The FCM SwapClear Service is an interface that processes and stores all FCM SwapClear Transactions received from an FCM Approved Trade Source System.

##### (a) *FCM SwapClear Service Functions*

The following functions are performed within the FCM SwapClear Service:

- (A) processing and settlement of coupon payments;
- (B) processing and settlement of consideration (fee) payments;
- (C) calculation of initial margin and Variation Settlement requirements;
- (D) calculation of SwapClear Tolerance Limits;
- (E) calculation of Price Alignment Amount;
- (F) adjustment of cash payments to conform with opening days and the SwapClear calendars;
- (G) allocation and designation of trades to a position-keeping account; and
- (H) reporting of registered trades.

FCM SwapClear Transactions presented via an FCM Approved Trade Source System (i.e. new trades presented for intra-day registration or existing trades presented for overnight registration – see Section 2.1.3(e)) will, subject to meeting all requirements prescribed by the Clearing House, be processed and stored within the FCM SwapClear

- (A) non-revised Index of Consumer Prices excluding Tobacco in the European Monetary Union;
- (B) non-revised Index of Consumer Prices excluding Tobacco in France;
- (C) non-revised Retail Price Index All Items in the United Kingdom; and
- (D) non-revised index of Consumer Prices for All Urban Consumers (CPI-U) before seasonal adjustment in the United States.

In the event an Index is no available to calculate the Index Final, the Clearing House will, in its sole discretion, determine a value for the Index Final.

(p) *Non-deliverable Interest Rate Swaps*

The Clearing House will calculate all coupon payments for FCM SwapClear Contracts that are non-deliverable interest rate swaps, including the Fixed Amount or Floating Amount payable under any such FCM SwapClear Contract, in USD, and all amounts due or payable under such FCM SwapClear Contracts must be paid in USD.

2.1.9 ***Initial Margin***

The Clearing House will require FCM Clearing Members to furnish it with Initial Margin. This amount will be determined by the prevailing market conditions and the expected time to close out the portfolio. The Portfolio Approach to Interest Rate Scenarios (PAIRS) will be used to calculate Initial Margin requirements for FCM SwapClear Contracts.

Separate Initial Margin calculations are performed for an FCM Clearing Member's house "H" and client "C" accounts and, within a "C" account, separately in respect of each FCM Client Sub-Account therein. No offset between the "C" and "H" accounts is permitted.

The Clearing House reserves the right to require additional amounts of Margin from a specific FCM Clearing Member or from all FCM Clearing Members in accordance with FCM Regulation 14 (*Margin and Collateral*).

(a) *Liquidity Multiplier*

Risk Management applies a liquidity multiplier based on Worst Case Loss (WCL) exceeding certain thresholds on the FCM Clearing Member's whole portfolio and individual currencies. The threshold amounts and multipliers are reviewed on an on-going basis. FCM Client accounts are treated as independent accounts for purposes of liquidity and will be called only in the event that the individual account exceeds the relevant threshold.

(b) *Intra-day Margin Calls*

In accordance with the Clearing House's FCM Regulations, the Clearing House is entitled to make additional margin calls for payment the same day (intra-day margin calls) where it is considered necessary. Intra-day margin calls can be called at any time throughout the Business Day. Intra-day margin calls will usually be made via the Protected Payments System (PPS) (see Section 2.1.10).

In certain circumstances the Clearing House may wish to make a call for additional funds after the closure of UK PPS facilities at 16:00 hours, London time. In this event the Clearing House will require payment of additional funds through PPS facilities in the USA (see Section 3.2.1). Members must ensure, in these circumstances, that they are in a position to fund such calls through their nominated US PPS account within one hour of the call.

(c) *Calculation of Initial Margin*

(A) Portfolio Approach to Interest Rate Scenarios (PAIRS)

The PAIRS calculation is a VAR based approach based on filtered historical simulations. All positions in each currency are re-valued under a series of cross portfolio yield curve scenarios to estimate the highest forecast loss and therefore the Initial Margin requirement. Further details of this method are available upon request and are detailed in the PAIRS TIP document. The PAIRS document and further information relating to Initial Margin calculations can be obtained from the Rates team at +44 (020) 7426 6325 or +44 (020) 7426 7428.

(d) *Tenor Basis Risk Margin Add-on*

A margin add-on will be applied in respect of tenor basis risk.

(e) ~~Reserved~~ *Default Fund Additional Margin*

The Clearing House may from time to time require ~~additional amounts of Margin from~~ an FCM Clearing Member to transfer Collateral to the Clearing House to meet the default fund additional margin requirement as determined and notified by the Clearing House to such FCM Clearing Member (“DFAM”). ~~The, in accordance with FCM Regulation 14 (Margin and Collateral), to cover such FCM Clearing Member’s exposure in relation to the Rates Service Default Fund (such Margin will be recorded in the given FCM Clearing Member’s “B” account)– methodology by which the Clearing House determines DFAM is available on the secure area of the Clearing House website.~~ The Clearing House will record any Collateral an FCM Clearing Member has provided to meet its DFAM obligation to the FCM Clearing Member’s Proprietary Account.



**SCHEDULE 2.1B**  
**CONFIDENTIALITY, NON-DISCLOSURE AND PARTICIPATION IN**  
**THE DEFAULT MANAGEMENT GROUP**

**1. Definitions**

- 1.1 “**Confidential Material**” means data (including but not limited to portfolio data) and documents, which are not in the public domain and which are disclosed to the FCM Clearing Member, its associated companies and advisers, or to which the FCM Clearing Member, its associated companies and advisers obtains or otherwise has access as a result of participation in the Rates Service DMP, (which, for the avoidance of doubt, does not include any information, data or documents provided to the Clearing House by the FCM Clearing Member).
- 1.2 “**DMG Member**” means an individual appointed by a Nominating FCM Clearing Member.
- 1.3 “**Nominating FCM Clearing Member**” means a SwapClear Member who, through their obligations under the Rates Service DMP, makes available a representative to serve on the Rates Service DMG.
- 1.4 “**Permitted Purpose**” means proper fulfillment by the FCM Clearing Member of its duties under the Rates Service DMP Annex and includes, after the completion of the Auction, the use by the FCM Clearing Member, its associated companies and advisers (to be determined by it at its discretion) of any data or documents related to portfolios successfully won through the Auction, for the purposes of its own on-going portfolio management and to enable it to comply with on-going legal or regulatory requirements.
- 1.5 References denoting the masculine (including “his” and “he”) shall be construed as the feminine if the DMG Member is female.
- 1.6 All other terms have the meaning ascribed to them in the FCM Rulebook, which includes the Default Rules (including the Rates Service DMP Annex).

**General Obligations of the FCM Clearing Member**

The obligations of an FCM Clearing Member set forth in this Schedule shall only apply in the event such FCM Clearing Member does not have an affiliated SwapClear Clearing Member that has agreed to participate in the Rates Service DMP on behalf of such FCM Clearing Member.

**Confidentiality and Non-Disclosure**

**2. Confidentiality**

- 2.1 The FCM Clearing Member agrees that, in consideration of being given Confidential Material, it will keep all such Confidential Material in the strictest confidence, adhere to the provisions of this Schedule in respect thereof and, subject to paragraph 2.3, will not disclose it to any person without the prior written permission of the Managing Director, Risk of the Clearing House or a Director of Risk Management of the

## 2.2 FOREXCLEAR

### 2.2.1 *Introduction and Interpretation*

This Section 2.2 of the FCM Procedures governs the FCM ForexClear Service and must be read in conjunction with the other parts of the FCM Rulebook.

A reference to an “**FXCCM**” is generic and encompasses both ForexClear Clearing Members (as defined in the UK General Regulations) and FCM ForexClear Clearing Members.

References to “**Business Day**”, “**Calculation Agent**”, “**Currency Pair**”, “**Disruption Fallback**”, “**Notional Amount**”, “**Reference Currency**”, “**Settlement Currency**”, “**Settlement Currency Amount**”, “**Settlement Date**”, “**Settlement Rate**”, “**Settlement Rate Option**”, “**Trade Date**”, “**Valuation Date**”, and “**Valuation Postponement**” shall have the meanings given to them in the FCM ForexClear Contract Terms.

References to “**business day**” shall carry the meaning given to it in the Rulebook.

“**EMTA**” means EMTA Inc., the trade association for the emerging markets that was formerly known as the Emerging Markets Traders Association, or any successor entity.

“**EMTA Template**” means, where applicable, the template terms for a Non-Deliverable FX Transaction for a particular Currency Pair that are in effect and published by EMTA on its website on the relevant Trade Date.

“**LCH G10 NDF Contract Template**” means, where applicable, the template terms for a Non-Deliverable FX Transaction for a particular Currency Pair that are set forth in the FCM ForexClear Contract Terms.

“**Relevant EMTA Template**” means, for a particular FCM ForexClear Contract, the EMTA Template that is incorporated by reference into the FCM ForexClear Contract Terms applicable to such Contract, together with any amendments thereto as set out in the FCM ForexClear Contract Terms.

“**Submission Date**” means the date on which a given trade is submitted to the Clearing House for registration.

Unless otherwise specified, all times are in local London time.

The liability of the Clearing House is as set out in Regulation 32 (*Exclusion of Liability*), which applies to these FCM Procedures in its entirety unless provided otherwise.

### 2.2.2 *Users of FCM ForexClear*

The FCM ForexClear Service is an interface that processes and stores all FCM ForexClear Transactions. FCM Clearing Members approved by the Clearing House to clear in the FCM ForexClear Service (“**FX FCMs**”), FCM Clients of

## Principles:

- (A) CVS is calculated at EOD on T-1.
- (B) Variation Settlement in respect of an FX FCM's portfolio of open ForexClear Contracts) is paid/ received, subject to the netting provisions of FCM Regulation 47, on the morning of T.
- (C) PAA Rate for T to be applied is known at EOD T.
- (D) PAA is calculated on the night of T, for CVS of T-1 for FCM ForexClear Contracts up to the business day before their Settlement Date.
- (E) PAA is paid / received on morning of T+1 via PPS.

## Components:

- (A) PAA Rate.
- (B) Cumulative Variation Settlement of the FX FCM's portfolio open FCM ForexClear Contracts.
- (C) Accrual Factor (factor used to convert the PAA Rate from an annual rate to a daily rate, on a basis of a year of 360 days).

## So:

- (A)  $PAA T = PAA T \text{ Rate} \times CVS T-1 \times \text{Accrual Factor}$ .

The Clearing House uses the PAA Rate from the relevant EOD overnight index swap curves, which is sourced from the Clearing House.

### 2.2.11 **Initial Margin ("IM")**

The Clearing House will require FX FCMs to furnish it with IM. This amount will be calculated within the day and at EOD on each business day as part of each Margin Run. With respect to each FX FCM, it is calculated for the portfolio of open FCM ForexClear Contracts and FCM ForexClear Transactions using ForexClear's Portfolio Analysis and Risk ("**FxPAR**") margining model. FxPAR is based on a modified filtered historical simulation value-at-risk methodology. All open FCM ForexClear Contracts and FCM ForexClear Transactions in each Currency Pair are re-valued under a series of cross portfolio yield curve scenarios to estimate the potential portfolio profit and loss and therefore the IM requirement.

These scenarios will be continually monitored and reviewed periodically or on an ad hoc basis according to market conditions. FX FCMs will usually be notified by the Clearing House of alterations to margin parameters no later than the day before calls are made based on the new parameters. Further

details of this method are available upon request from the ForexClear Risk team.

FxPAR uses the historical (5 year) data submitted by FXCCMs pursuant to Section 2.2.9, which is adapted to current market prices.

Separate Initial Margin calculations are performed for an FX FCM's house "H" and client "C" accounts and, within a "C" account, separately in respect of each FCM Client Sub-Account therein. No offset between the "C" and "H" accounts is permitted.

The Clearing House reserves the right to require additional amounts of Margin from a specific FX FCM or from all FX FCMs in accordance with FCM Regulation 14 (*Margin and Collateral*).

(a) *Credit Risk Multiplier ("CRiM")*

The CRiM applied will consider the FX FCM's credit worthiness, Initial Margin level and/or stress testing exposures in accordance with LCH Credit Risk Policy.

(b) *Liquidity Risk Multiplier ("LRMM")*

Where an FXCCM has an exposure above set thresholds in a particular Currency Pair or tenor of FCM ForexClear Contracts, the LRMM is applied and additional IM is charged. The LRMM is calculated in accordance with parameters set by the ForexClear Default Management Group (the "FXDMG") according to tenor and notional concentration. The thresholds are reviewed quarterly and use prevailing perceptions of market conditions as seen by the FXDMG.

LRMM increases IM called due to concentrated Currency Pair exposure by tenor of FCM ForexClear Contracts. Additional IM is called to mitigate the risk of a position not being closed out in seven days and/or the extra hedging costs that may be incurred.

The Clearing House calculates and applies LRMM as part of each Margin Run, based on the IM for each Currency Pair in the FX FCM's house position-keeping account.

(c) *Sovereign Risk multiplier ("SRM")*

An SRM is applied when there is a perceived risk of sovereign default or a change in a country's currency regime which would impact FCM ForexClear Contracts transacted in certain Reference Currencies. The SRM takes into account:

- (A) the probability of sovereign default or a regime change event occurring; and
- (B) the depreciation or appreciation risk of the Reference Currencies.

The SRM sovereign default probability is calculated by assessing the three month probability of default for the different sovereign countries, based on the country's 5-year credit default swap (CDS) spread. The probability of a regime change event is estimated based on historical events and publicly available data for the different sovereign countries. The country CDS spreads are reviewed and updated weekly.

The Clearing House calculates and applies the SRM as part of each Margin Run, for each Currency Pair in the FX FCM's house position-keeping account.

(d) *Default Fund Additional Margin*

The Clearing House may from time to time require [an FX FCM to transfer Collateral to the Clearing House to meet the default fund additional margin requirement as determined and notified by the Clearing House to such FX FCM \(“DFAM”\). The methodology by which the Clearing House determines DFAM is available on the secure area of the Clearing House website. The Clearing House will record any Collateral an FX FCM has provided to meet its DFAM obligation to the FX FCM's Proprietary Account](#)~~additional amounts of Margin from an FX FCM, in accordance with FCM Regulation 14 (Margin and Collateral), to cover such FX FCM's exposure in relation to the ForexClear Service Default Fund (such Margin will be recorded in the given FX FCM's “B” account).~~

2.2.12 *Additional Margin, ForexClear Tolerance, MER Buffer, Completion Margin and Intraday Margin Calls*

(a) *Additional Margin*

The Clearing House may require an FX FCM to furnish additional amounts of Margin (in addition to Initial Margin) as security for the performance by an FX FCM of its obligations to the Clearing House in respect of FCM ForexClear Contracts to which such FX FCM is a party in accordance with FCM Regulation 14 (*Margin and Collateral*). This may be required from time to time where, in the opinion of the Clearing House, the risk inherent in FCM ForexClear Contracts to which such FX FCM is a party is not adequately covered by Initial Margin. This may cover instances where stress testing losses under various scenarios provided in the ForexClear Default Fund Supplement have increased.

(b) *Minimum Excess Requirement Buffer (“MER Buffer”)*

To facilitate the intraday registration of FCM ForexClear Contracts, at each EOD Margin Run, the Clearing House will call from each FX FCM, separately in respect of its Proprietary Account and each of its FCM Client Sub-Accounts, an amount of IM in respect of its and its FCM Clients' potential intraday Liabilities (as defined below in Section [2.2.17](#)~~2.2.17~~) for the following day (“MER Buffer”), provided that the Clearing House shall not call MER Buffer from an FX FCM that (i) opted-in to ForexClear Tolerance in accordance with paragraph (c)

Appendix II :  
Procedures Section 2C  
("SwapClear Clearing Service")



**LCH LIMITED**

**PROCEDURES SECTION 2C**

**SWAPCLEAR CLEARING SERVICE**

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## 1. SWAPCLEAR CLEARING SERVICE

### 1.1 The Clearing Process

The SwapClear Service is an interface that processes and stores all SwapClear Transactions received from an Approved Trade Source System.

SCMs are Clearing Members who have applied and have been accepted by the Clearing House to clear in the SwapClear Service. SwapClear Dealers –are not Clearing Members but have met the criteria for registration as a SwapClear Dealer and have entered into a SwapClear Dealer Clearing Agreement with an SCM and the Clearing House. Subject to obtaining approval from the Clearing House's Onboarding Department, an SCM may offer certain SwapClear Client Clearing Services to SwapClear Clearing Clients. SwapClear Client Clearing Services are provided to SwapClear Clearing Clients through an Individual Segregated Account, an Indirect Gross Account, a Custodial Segregated Account or an Omnibus Segregated Account. SCMs should contact the Clearing House's Onboarding Department for further details of the SwapClear Client Clearing Service and the Clearing House's approval process (+44 (0)20 7426 7949; [onboarding@lch.com](mailto:onboarding@lch.com)).

An SCM Branch must always be the same legal entity as the SCM and, subject to authorisation by the Clearing House, it may present SwapClear Transactions to the Clearing House, for registration as SwapClear Contracts in the name of the SCM, using its own BIC code.

Therefore, where a SwapClear Transaction is presented for clearing by an SCM Branch, it is deemed to have been presented to the Clearing House for registration by, and in the name of, the SCM of which it is part.

#### 1.1.1 *SwapClear Service Functions*

The following functions are performed within the SwapClear Service:

- (a) processing and settlement of coupon payments;
- (b) processing and settlement of consideration (fee) payments;
- (c) calculation of initial and variation margin requirements;
- (d) calculation of the net present value of SwapClear Transactions;
- (e) calculation of the cumulative net present value of certain SwapClear Transactions;
- (f) calculation of SwapClear Tolerance Limits;
- (g) calculation of price alignment interest and price alignment amounts;
- (h) adjustment of cash payments to conform with opening days and the SwapClear calendars;



- (i) allocation and designation of trades to a position-keeping account; and
- (j) reporting of registered trades.

SwapClear Transactions presented via an Approved Trade Source System (i.e. new trades presented for intra-day registration or existing trades presented for overnight registration will, subject to meeting all requirements prescribed by the Clearing House, be processed and stored within the SwapClear clearing system. Information regarding SwapClear Contracts and margin reporting will be disseminated via the SwapClear Clearing Member reporting system (see Section 1.1.3).

#### 1.1.2 *Clearing House System Requirements*

A SwapClear Clearing Member must, in order to present –SwapClear Transactions to the Clearing House, be a user of an Approved Trade Source System.

#### 1.1.3 *SwapClear Clearing Member Reporting System*

The Clearing House has various arrangements for the notification to SCMs of SwapClear Contract registrations and other information. These make use of systems including the following:

- (a) Clearing Member reports;
- (b) Approved Trade Source Systems; and
- (c) the ClearLink API.

An end-user report generation and analytical capability is provided by the Clearing House to SCMs. All SwapClear reports will be disseminated via the Clearing House's secure password access Clearing Member-only website. These reports are the definitive record as to registration by the Clearing House.

The Clearing House is not liable for any corruption or alteration of messages or loss of data which may take place within any Approved Trade Source System.

SCMs will be able to produce reports either to print locally or to download in machine-readable data-file format. Queries about the Clearing Member-only website should be directed to the Clearing House Service Desk on +44 (0)20 7426 7200.

#### 1.1.4 *Clearing House Reporting*

- (a) The Clearing House (acting, where applicable, through the entity to which it has elected to delegate the relevant reporting obligation) shall report to a trade repository or similar body the details of a SwapClear Contract and any modification or termination of such contract without

Prior to and as a precondition to the registration of an eligible SwapClear Transaction, the relevant SwapClear Clearing Member must provide notice to and receive approval from the Clearing House (or have previously provided such notice and received such approval), in such form as determined by the Clearing House in its sole discretion, with respect to each type of SwapClear Transaction –to be presented for registration (be it with respect to tenor, currency or other eligibility criteria). Notwithstanding anything herein to the contrary, if (a) notification pursuant to this paragraph is not received by the Clearing House, (b) the relevant SwapClear Clearing Member does not receive approval from the Clearing House pursuant to this paragraph, or (c) such approval granted pursuant to this paragraph has been rescinded by the Clearing House, the Clearing House may, in its sole discretion, reject any relevant -SwapClear Transaction.

### 1.3.2 *Clearing House Notification*

In the case of a SwapClear Clearing Member which has been nominated to register a SwapClear Transaction on behalf of a third party Executing Party other than a SwapClear Dealer, the Clearing House will (only where such SwapClear Transaction is not a Trading Venue Transaction) provide notification to such SwapClear Clearing Member of the relevant SwapClear Transaction and that it has been so nominated, via member reports, the ClearLink API or otherwise ("**Notification**"). Where a SwapClear Clearing Member is nominated to clear both SwapClear Contracts arising from the registration of a SwapClear Transaction in the capacities described in this paragraph, such SwapClear Clearing Member will receive two separate Notifications from the Clearing House in relation to such SwapClear Transaction. All Notifications shall be provided within the required timeframe under all Applicable Law. In all other cases, no Notification will be provided to any SwapClear Clearing Member.

In respect of a SwapClear Transaction that is not a Trading Venue Transaction, following receipt of a Notification, a SwapClear Clearing Member may choose to grant or refuse consent to register the SwapClear Transaction. It is a condition for registration of such a SwapClear Transaction that a SwapClear Clearing Member grants a separate consent (each, a "**Necessary Consent**") in respect of each Notification received by it in relation to the registration of such SwapClear Transaction. The Clearing House has an automated system which it operates on each business day for the purposes of rejecting SwapClear Transactions which have been presented for clearing but in respect of which any Necessary Consent has not been notified to the Clearing House prior to the LCH Cut-off Time. The "**LCH Cut-off Time**" in respect of a SwapClear Transaction will be the expiry of the timeframe determined by the Clearing House. If a SwapClear Clearing Member has not notified the Clearing House of a Necessary Consent by the LCH Cut-off Time, it will be deemed to have rejected the relevant SwapClear Transaction. Any Necessary Consent of a SwapClear Transaction notified by a SwapClear Clearing Member to the Clearing House prior to the LCH Cut-off Time is irrevocable. Any Necessary Consent notified by a SwapClear Clearing Member to the Clearing House after the LCH Cut-off Time shall be invalid.

In circumstances where the registration of a SwapClear Transaction is conditional upon one or more Necessary Consent(s) being notified by the applicable SwapClear Clearing Member(s), the relevant SwapClear Transaction shall be deemed to have been "submitted" to the Clearing House by each such SwapClear Clearing Member at the time when it notifies the Clearing House of its Necessary Consent. In all other circumstances, a SwapClear Transaction shall be "submitted" to the Clearing House by the applicable SwapClear Clearing Member upon being presented to the Clearing House for clearing by or on behalf of such SwapClear Clearing Member (or its SCM Branch) or by or on behalf of a SwapClear Dealer (acting in such capacity with respect to the relevant SwapClear Transaction) approved to clear SwapClear Transactions through the relevant SwapClear Clearing Member.

In accordance with Section 1.3.5 of these Procedures, it is a precondition for the registration of a SwapClear Contract that the applicable SwapClear Clearing Member has complied with all requirements to provide sufficient Collateral (taking into account Client Buffer and/or SwapClear Tolerance, if any) to the Clearing House as of the time of "submission" or "deemed submission" of the SwapClear Transaction to which the SwapClear Contract relates, except that such Collateral shall not be required to be provided prior to registration as a condition thereto if such SwapClear Transaction is a Sub-Block Trading Venue Transaction. For the avoidance of doubt, in respect of the registration of a SwapClear Transaction other than a Sub-Block Trading Venue Transaction, each SwapClear Clearing Member or the relevant SwapClear Clearing Member and FCM Clearing Member must have complied with all requirements to provide sufficient Collateral (taking into account Client Buffer and/or SwapClear Tolerance, if any) at the time when it submitted or was deemed to have submitted (as applicable) the relevant SwapClear Transaction.

In exceptional circumstances, where a Clearing Member experiences technical issues such that it is unable to accept or reject a Notification, it may contact the Clearing House via email to request that a SwapClear Transaction to which a Notification relates be accepted or rejected on its behalf. In such circumstances, and unless the Clearing House notifies the Clearing Member otherwise, the Clearing House will manually accept or reject the SwapClear Transaction on behalf of the requesting Clearing Member and will confirm registration or rejection of the SwapClear Transaction via email. In the event that a Clearing Member requests the manual acceptance or rejection of a SwapClear Transaction it shall ensure that such acceptance is requested by appropriately authorized personnel. The Clearing House shall have no liability in the event that a Clearing Member suffers a loss through the unauthorised manual acceptance or rejection of a SwapClear Transaction.

Where, in the context of a Default, the Clearing House executes a hedging SwapClear Transaction, which is:

- (a) not a Trading Venue Transaction, with a Hedging Rates Service Clearing Member for the purpose of Risk Neutralisation, and such SwapClear Transaction is presented for clearing to the Clearing House, the Defaulting Rates Service Clearing Member shall be

### 1.3.6 Backloading of Existing Trades

A SwapClear Transaction that has a Trade Date of greater than ten calendar days prior to the date of presentation of such SwapClear Transaction to the Clearing House for clearing is considered a backloaded trade by the Clearing House (a "**Backloaded Trade**"). Due to the nature of Backloaded Trades, SwapClear Clearing Members should note that a relatively large amount of Collateral is required to register such trades. The Clearing House provides the facility for SwapClear Clearing Members to load such eligible existing SwapClear Transactions, through an Approved Trade Source System. Where the Clearing House approves additional Approved Trade Source Systems for these purposes, it will notify SwapClear Clearing Members via a member circular. Backloading requires bilateral agreement between the relevant Executing Parties and acceptance by the SwapClear Clearing Member(s) or the SwapClear Clearing Member and the FCM Clearing Member (as the case may be) of the full particulars required by the Clearing House for each such SwapClear Transaction.

At least once every Business Day, the Clearing House will carry out a process (each a "**Backload Registration Cycle**") for the registration of Backloaded Trades which have been presented for clearing or with respect to which the Clearing House has received one or more Necessary Consents, if any. Following each Backload Registration Cycle, the Clearing House will calculate the increase in Collateral required to register the Backloaded Trade(s) and will notify each relevant SwapClear Clearing Member (the "**Backload Margin Call**").

The Backload Margin Call will be for the entire amount of additional Collateral required in connection with the Backloaded Trade(s), and the Backload Margin Call cannot be satisfied by and will not take into account SwapClear Tolerance (i.e. SwapClear Tolerance is not available for this purpose) or any available Client Buffer (other than that which has been expressly allocated for that purpose, as described in the paragraph below). In connection with a Backload Margin Call, following the time that a SwapClear Clearing Member is required to deliver to the Clearing House the Collateral associated with such Backload Margin Call (the "**Backload Margin Call Deadline**"), the Clearing House will issue such SwapClear Clearing Member with a subsequent margin call to deliver Collateral in respect of any increase in SwapClear Tolerance utilisation as of the time of the Backload Margin Call Deadline (if any).

Where an individual SwapClear Clearing Member determines that the Backloaded Trade(s) that it is submitting for registration will lead to an aggregate change (be it either an increase or decrease) in the net present value of its portfolio of SwapClear Contracts in excess of a threshold amount (the "**Individual Backload Value Threshold**") as published by the Clearing House from time to time, it shall notify the Clearing House before the end of the Business Day preceding the relevant Backload Registration Cycle. In the event that the Clearing House does not receive such notification and the change in net present value of the SwapClear Clearing Member's portfolio of SwapClear Contracts is in excess of the Individual Backload Value Threshold

### 1.3.7 *Notification*

In respect of a SwapClear Transaction which is:

- (a) a Trading Venue Transaction, the Clearing House will notify the SwapClear Clearing Members, Trading Venue and (if the originating Approved Trade Source System is different from the Trading Venue) the originating Approved Trade Source System of registration or rejection of the SwapClear Transaction (as applicable); and
- (b) not a Trading Venue Transaction, the Clearing House will notify the SwapClear Clearing Members (via the originating Approved Trade Source System or ClearLink API) of registration or rejection of the SwapClear Transaction (as applicable),

in each case within the required timeframe under all Applicable Law

### 1.3.8 *Rejected Trades*

Trades presented for registration that do not meet the SwapClear Eligibility Criteria or any other requirement for registration under the Rulebook, including a trade (a) presented by or on behalf of a SwapClear Clearing Member in respect of a third party Executing Party other than a SwapClear Dealer where such trade was executed on a Trading Venue that was not at the time of execution of such trade an Eligible Trading Venue in respect of such SwapClear Clearing Member, (b) presented by or on behalf of a SwapClear Clearing Member that was executed on a trading venue or facility that had not at the time of the execution of such trade been approved by the Clearing House as a Trading Venue, (c) which contains invalid or incomplete message data, or (d)(i) which is not a Sub-Block Trading Venue Transaction, and (ii) with respect to which the Clearing House has not received sufficient Collateral (taking into account Client Buffer and/or SwapClear Tolerance, if any) will, in each case, be rejected.

If a trade is presented to the Clearing House for registration and rejected, it may be re-presented for registration in the form of a new trade but with the same economic terms in accordance with, and subject to, the Rulebook and all Applicable Law, and such trade will, for the purposes of the Rulebook and upon such re-presentation, constitute a new trade.

### 1.3.9 *Package Transactions*

In certain circumstances a SwapClear Clearing Member may, via an Approved Trade Source System, present to the Clearing House, in a single submission, a group of two or more SwapClear Transactions for simultaneous registration (such group of SwapClear Transactions, a **Package Transaction**). A Package Transaction must be identified to the Clearing House at the time of its presentation in the format prescribed by the Clearing House. Where the Package Transaction is not presented in the prescribed format, each

constituent SwapClear Transaction within the Package Transaction will be rejected.

Where the Clearing House receives a Package Transaction for registration it shall treat each SwapClear Transaction that forms part of the Package Transaction as a new SwapClear Transaction in accordance with the Rulebook and, where each constituent SwapClear Transaction within the Package Transaction meets the registration requirements as set out in the Rulebook (including a Necessary Consent and the provision of Collateral, where applicable), the Clearing House will simultaneously register all of the SwapClear Transactions within that Package Transaction. Where one or more of the constituent SwapClear Transactions does not meet the Clearing House's registration requirements then all the constituent SwapClear Transactions of the Package Transaction shall be rejected.

Where a constituent SwapClear Transaction of a Package Transaction is an Eligible -Trading Venue Transaction, it is a condition of registration that all of the constituent SwapClear Transactions of such Package Transaction be Eligible -Trading Venue Transactions. Where such condition is not met, all constituent SwapClear Transactions of the Package Transaction will be rejected. In respect of a Package Transaction comprising SwapClear Transactions that are not executed on a Trading Venue, the Clearing House will send a Notification to the relevant SwapClear Clearing Member(s) for the acceptance of each such constituent SwapClear Transaction.

In respect of a Package Transaction presented -in a SwapClear Clearing Member's name, such SwapClear Clearing Member's margin requirement will be assessed based on the net margin call for all of the constituent SwapClear Transactions of such Package Transaction. Where one or more of the constituent SwapClear Transactions in a Package Transaction is not a Sub-Block Trading Venue Transaction, the relevant SwapClear Clearing Member is required to provide the Clearing House with sufficient Collateral prior to registration of the entire Package Transaction as a condition thereto (taking into account available SwapClear Tolerance, if any).

The Clearing House may limit the number of SwapClear Transactions that may be included in a Package Transaction by way of member circular.

## 1.4 **Proprietary Accounts and Client Accounts**

### 1.4.1 *Proprietary Accounts*

A SwapClear Clearing Member may request that the Clearing House opens one or more Proprietary Accounts in respect of its House Clearing Business.

Each Proprietary Account will map to two or more sub-accounts:

- (a) a position account; and
- (b) one or more collateral accounts (including, where relevant, a Client Buffer Account).

- (a) The Index level used for calculating the Floating Rate is determined according to the 2008 ISDA Inflation Definitions in respect of the following indices (or successor indices from time to time):
- (i) non-revised Index of Consumer Prices excluding Tobacco in the European Monetary Union;
  - (ii) non-revised Index of Consumer Prices excluding Tobacco in France;
  - (iii) non-revised Index of Consumer Prices excluding Tobacco in the United Kingdom; and
  - (iv) non-revised Index of Consumer Prices for All Urban Consumer (CPI-U) before seasonal adjustment in the United States.

In the event an Index is not available to calculate the Index Final, the Clearing House will, in its sole discretion, determine a value for the Index Final.

#### 1.8.14 Non-deliverable Interest Rate Swaps

The Clearing House will calculate all coupon payments for SwapClear Contracts that are non-deliverable interest rate swaps, including the Fixed Amount or Floating Amount payable under any such SwapClear Contract, in USD, and all amounts due or payable under such SwapClear Contracts must be paid in USD.

### 1.9 Initial Margin

The Clearing House will require SCMs to transfer Collateral in respect of their initial margin obligations, which are not discharged. This amount will be determined by the prevailing market conditions and the expected time to close out the portfolio. The Portfolio Approach to Interest Rate Scenarios (PAIRS) will be used to calculate initial margin requirements for SwapClear Contracts.

Separate initial margin calculations are performed for an SCM's Proprietary Accounts and for each Individual Segregated Account, Custodial Segregated Account, Omnibus Segregated Account (other than an Omnibus Gross Segregated Account), and Indirect Gross Sub-Account within an Indirect Gross Account. In respect of each Omnibus Gross Segregated Clearing Client (other than a Combined Omnibus Gross Segregated Clearing Client) separate initial margin calculations are performed in respect of the SwapClear Contracts entered into by the relevant SCM on behalf of each such Omnibus Gross Segregated Clearing Client. In respect of a group of Combined Omnibus Gross Segregated Clearing Clients a single initial margin calculation is performed in respect of SwapClear Contracts entered into by the relevant SCM on behalf of each such group of Combined Omnibus Gross Segregated Clearing Clients.

No offset between the "C" and the "H" accounts is allowed (except (i) pursuant to Rule 8(d) of the Default Rules or any Insufficient Resources Determination Rule, or (ii) in relation to the transfer of House Excess or Client Buffer in accordance with the Rulebook) and no offset between any Client Accounts is allowed (except pursuant to

account regulatory requirements). All positions in each currency are revalued under a series of scaled historical market moves and initial margin is calculated as the Expected Shortfall (ES) of the portfolio. Further details of this method are available upon request and are detailed in the PAIRS TIP document. The PAIRS document and further information relating to initial margin calculations can be obtained from SwapClear Risk on +44 (0)20 7 426 7549.

1.9.6 ~~Reserved.~~ Default Fund Additional Margin

The Clearing House may from time to time require an SCM to transfer additional amounts of Collateral to the Clearing House to meet the default fund additional margin requirement as determined and notified by the Clearing House to such SCM ('DFAM'). The methodology by which the Clearing House determines DFAM is available on the secure area of the Clearing House website. The Clearing House will record any from a SwapClear Clearing Member, in accordance with Regulation 20 (Margin and Collateral), to cover such SwapClear Clearing Member's exposure in relation to the Rates Service Default Fund (such Collateral an SCM has provided to meet its DFAM obligation to the SCM's Proprietary Account. be recorded in the given SwapClear Clearing Member's "B" account)

1.9.7 *Collateral for Stress Loss Exposure*

In response to a request from a SwapClear Clearing Member, the Clearing House may require additional Collateral to cover such SwapClear Clearing Member's stress loss exposure with respect to a Client Account (the "**Stress Loss Margin**"). The Stress Loss Margin may be subject to an additional percentage add-on as the Clearing House may require in its sole discretion. The Stress Loss Margin and any add-ons, as applicable, will be called as part of the end of day margin run and by means of morning PPS calls. The request must indicate the percentage of the stress loss exposure that will be covered by Stress Loss Margin. Any request pursuant to this paragraph is subject to the Clearing House's consent in its sole discretion (and the Clearing House may apply a lower percentage than that requested by the SwapClear Clearing Member.)

A SwapClear Clearing Member may cease paying Stress Loss Margin by giving not less than three (3) business days' written notice to the Clearing House.

Before making any request to pay or notifying the Clearing House of ceasing to pay Stress Loss Margin, a SwapClear Clearing Member must obtain the consent of the SwapClear Clearing Client(s) to which the Stress Loss Margin applies. In making any request pursuant to this paragraph, the SwapClear Clearing Member is deemed to represent that it has obtained such consent.

Where SwapClear Contracts entered into by a SwapClear Clearing Member in respect of a SwapClear Clearing Client which has requested to pay Stress Loss Margin are transferred to a Backup Clearing Member or a Receiving Clearing Member (including an FCM Clearing Member), such Backup Clearing



- (a) a copy of the notice from the relevant SwapClear Clearing Member to the relevant SwapClear Clearing Client or from the relevant SwapClear Clearing Client to the relevant SwapClear Clearing Member designating the relevant early termination date or, if such early termination date has occurred automatically, evidence of the relevant event of default or termination event;
- (b) a copy of a notice served by the relevant SwapClear Clearing Member on the relevant SwapClear Clearing Client alerting that SwapClear Clearing Client of its intention to request a transfer of the relevant Related SwapClear Contracts pursuant to this Section 1.13; and
- (c) an indemnity from the relevant SwapClear Clearing Member in a form suitable to the Clearing House

The Clearing House will usually arrange a transfer of Related SwapClear Contracts within 24 hours of receipt (to the extent applicable) of the documents listed in paragraphs (a) to (c) above.

1.13.2 In any other circumstance not covered by Section 1.13.1, Section 1.14, Section 1.15 or Regulation 60, a SwapClear Clearing Member may only instruct the Clearing House to transfer a SwapClear Contract from its Client Account to its Proprietary Account in circumstances where the Clearing House has received from the SwapClear Clearing Member:

- (a) evidence of the relevant SwapClear Clearing Client's consent to such transfer in a form suitable to the Clearing House; and
- (b) an indemnity in a form suitable to the Clearing House.

The Clearing House will usually arrange a transfer of any SwapClear Contract to be transferred pursuant to this Section 1.13.2 within 24 hours of receipt (to the extent applicable) of the documents listed in paragraphs (a) and (b) above.

## 1.14 Indirect Clearing

1.14.1 In circumstances where an early termination date (howsoever described) occurs in respect of all of the transactions between a SwapClear Clearing Member and a SwapClear Clearing Client acting on behalf of Indirect Clearing Clients comprising an Indirect Gross Account in respect of which such SwapClear Clearing Member (i) is a party to Related SwapClear Contracts and (ii) at the time of such early termination date, is not a Defaulting SCM, that SwapClear Clearing Member may instruct the Clearing House to take one of the following steps in respect of each Indirect Clearing Client comprising the Indirect Gross Account:

- (a) in circumstances where the SwapClear Clearing Member notifies the Clearing House of a Backup Client in respect of the relevant Indirect Clearing Client, transfer all of the open Related SwapClear Contracts registered to the Indirect Gross Sub-Account referable to the Indirect

Clearing Client to the relevant Indirect Gross Sub-Account referable to the Indirect Clearing Client of the new or existing Indirect Gross Account which the SwapClear Clearing Member has opened in respect of such Backup Client (a "**Client to Client Porting**");

- (b) transfer all of the open Related SwapClear Contracts registered to the Indirect Gross Sub-Account referable to the Indirect Clearing Client to:
  - (i) a new Individual Segregated Account or Custodial Segregated Account opened within the Clearing House by the SwapClear Clearing Member directly on behalf of such Indirect Clearing Client who shall, after such transfer, become a SwapClear Clearing Client in respect of such Client Account; or
  - (ii) a new or existing Omnibus Segregated Account opened within the Clearing House by the SwapClear Clearing Member where such Indirect Clearing Client shall, after such transfer, become a SwapClear Clearing Client in respect of such Omnibus Segregated Account,(each, a "**Direct Account Opening**"); or
- (c) transfer all of the open Related SwapClear Contracts registered to the Indirect Gross Sub-Account referable to the relevant Indirect Clearing Client to its Proprietary Account (an "**Initial Transfer**").

The Clearing House will determine, in respect of each Indirect Clearing Client comprising the Indirect Gross Account, whether a Client to Client Porting, a Direct Account Opening or an Initial Transfer (as applicable) is possible within the period of time considered by the Clearing House (in its sole discretion) to be appropriate in the relevant circumstances. In the event of a determination by the Clearing House that the relevant step is impossible within such time period (an "**Impossibility Determination**"), the Clearing House will notify the SwapClear Clearing Member and will not undertake a Client to Client Porting, a Direct Account Opening or an Initial Transfer in respect of the relevant Indirect Clearing Client.

1.14.2 Each of the steps referred to in paragraphs (a), (b) and (c) of Section 1.14.1 above will, in respect of each Indirect Clearing Client comprising the Indirect Gross Account, be subject to the following:

- (a) the Clearing House receiving a copy of the notice from the SwapClear Clearing Member to the relevant SwapClear Clearing Client or from the SwapClear Clearing Client to the relevant SwapClear Clearing Member, copied to each Indirect Clearing Client comprising the Indirect Gross Account, designating the relevant early termination date or, if such early termination date has occurred automatically, evidence of the relevant event of default or termination event;

Appendix III:  
Procedures Section 2I  
("ForexClear Clearing Service")



**LCH LIMITED**

**PROCEDURES SECTION 2I**

**FOREXCLEAR CLEARING SERVICE**

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## 1. INTRODUCTION AND INTERPRETATION

These Procedures govern the ForexClear Service, form part of the Rulebook and must be read in conjunction with the other parts of the Rulebook.

Capitalised terms used in these Procedures not otherwise defined herein have the meanings ascribed to them in the Rulebook.

References to "**Sections**" shall mean sections in these Procedures.

References to "**Business Day**", "**Calculation Agent**", "**Disruption Fallback**", "**Notional Amount**", "**Reference Currency**", "**Settlement Currency**", "**Settlement Currency Amount**", "**Settlement Date**", "**Settlement Rate**", "**Settlement Rate Option**", "**Trade Date**", "**Valuation Date**", "**Valuation Postponement**" shall carry the meanings given to them in the Product Specific Contract Terms and Eligibility Criteria Manual as published on the Clearing House's website from time to time with respect to the relevant Currency Pair.

References to "**business day**" shall carry the meaning given to it in the Rulebook.

References to "Currency Pair" are to the relevant currency pairs specified in the Schedule to the ForexClear Regulations.

"**EMTA**" means EMTA Inc., the trade association for the emerging markets that was formerly known as the Emerging Markets Traders Association, or any successor entity.

"**EMTA Template**" means, where applicable, the template terms for a Non-Deliverable FX Transaction for a particular Currency Pair that are in effect and published by EMTA on its website on the relevant Trade Date.

"**ForexClear Margin or Settlement Currency**" means

- (a) in the case of a ForexClear NDF Contract, USD; or
- (b) in the case of all other ForexClear Contracts, the ForexClear Currency or ForexClear Currencies elected as such by the FXCCM party to such ForexClear STM Contract at registration of such ForexClear STM Contract, provided that the Clearing House has permitted such currency or currencies to be chosen for such purpose.

"**LCH G10 NDF Contract Template**" means, where applicable, the template terms for a Non-Deliverable FX Transaction for a particular Currency Pair that are set forth in the ForexClear Contract Terms.

"**NPV Payment**" means, in respect of a business day and a ForexClear STM Contract that is settled-to-market daily in accordance with Regulation 106A, the amount or amounts paid by either the relevant FXCCM or the Clearing House to the other on such business day in respect of the change in the net present value of that ForexClear STM Contract (or the obligations thereunder) in accordance with the ForexClear STM Terms applicable to that ForexClear STM Contract.

"T+1" means the business day immediately following T; and "MTM" means the total value (expressed in the relevant currency) of an FXCCM's portfolio open of ForexClear STM Contracts after valuation in accordance with Section 1.5.2 (*Variation Margin and NPV Payments*) at close of business on any business day. The Clearing House calculates PAA once a day at EOD.

- (i) Principles:
  - (A) MTM is calculated at EOD on T-1.
  - (B) Change in MTM (net NPV Payment obligations in respect of an FXCCM's portfolio of open ForexClear STM Contracts) is paid/ received on the morning of T.
  - (C) PAA Rate for T to be applied is known at EOD T.
  - (D) PAA is calculated on the night of T, for MTM of T-1 for ForexClear Contracts up to the business day before their Settlement Date.
  - (E) PAA is paid / received on morning of T+1 via PPS.
- (ii) Components:
  - (A) PAA Rate (annualised interest applied to an FXCCM's MTM).
  - (B) MTM.
  - (C) Accrual Factor (factor used to convert the PAA Rate from an annual rate to a daily rate, on a basis of a year of 360 days).
- (iii) So:
  - (A)  $PAA\ T = PAAT\ Rate \times MTMT-1 \times Accrual\ Factor.$

The Clearing House uses the PAA Rate from the relevant EOD overnight index swap curves, which is sourced from the Clearing House.

1.5.6 *Initial Margin:* The Clearing House will require FXCCMs to transfer Collateral to the Clearing House in respect of initial margin. Each FXCCM's initial margin obligation will comprise the aggregate of the initial margin obligations separately calculated in relation to (i) the ForexClear NDF Service and (ii) the ForexClear Option Service.

- (a) *Calculation of Initial Margin:* Separate initial margin calculations are performed for an FXCCM's Proprietary Account, each Client Account (other than an Indirect Gross Account) and each Indirect Gross Sub-Account within an Indirect Gross Account. No offset between the Proprietary Accounts and the Client Accounts is allowed (except

pursuant to Rule 8(d) of the Default Rules or any Insufficient Resources Determination Rule) and no offset between any Client Accounts is allowed (except pursuant to Rule 15(a)(ii) of the Default Rules, a Cross-ISA Client Excess Deduction or any Insufficient Resources Determination Rule).

The initial margin obligation is calculated on a real-time (or near real-time) basis throughout each day. With respect to each FXCCM, it is calculated for the portfolio of open ForexClear Contracts and ForexClear Transactions using ForexClear's Portfolio Analysis and Risk ("**FxPAR**") margining model. FxPAR is based on a modified historical simulation expected shortfall methodology. All open ForexClear Contracts and ForexClear Transactions in each Currency Pair are re-valued under a series of FX rate and yield curve scenarios to estimate the potential portfolio profit and loss and therefore the initial margin requirement.

The adequacy of the initial margin calculation is reviewed daily. ForexClear Clearing Members will usually be notified by the Clearing House of alterations to margin model parameters no later than the day before calls are made based on the new parameters. Further details of this method are available upon request from the ForexClear Risk team.

FxPAR uses the market data submitted by FXCCMs pursuant to paragraph 1.5.1(a) (*Product Valuation*).

*Initial Margin Add-ons:* Credit risk, liquidity risk and sovereign risk margin add-ons are measured and applied to FXCCMs as part of the initial margin requirement calculation.

- (b) *Credit Risk Margin ("**CRiM**"):* CRiM reflects the additional risk related to the FXCCM's credit quality. The CRiM calculation considers the FXCCM's credit worthiness, initial margin obligation level and/or stress testing exposures in accordance with LCH.Clearnet Credit Risk Policy.
- (c) *Liquidity Risk Margin ("**LRM**"):* LRM reflects the additional risk due to the FXCCM having concentrated risk exposures above set thresholds in a particular Currency Pair or ForexClear Currency Pair or tenor of ForexClear Contracts. The LRM is calculated in accordance with parameters set by the ForexClear Default Management Group (the "**FXDMG**").
- (d) *Sovereign Risk Margin ("**SRM**"):* SRM reflects the additional risk related to a potential country default or a change in a country's currency regime which would impact ForexClear Contracts transacted in certain Reference Currencies. The SRM calculation considers the probability of sovereign default occurring and the depreciation or appreciation risk of the Reference Currencies. The SRM sovereign default probability is calculated by assessing the three-month probability of default for the different sovereign countries, based on the country's 5-year credit default swap (CDS) spread.

- (e) Settlement Management Margin ("SMM"): SMM reflects the additional risk associated with a potential settlement failure. The SMM calculation considers the FXCCM's future settlement obligations in each of the relevant currencies and the potential cost of utilising and replenishing liquidity provisions, where required, to fulfil those settlement obligations.
- ~~(e)(f)~~ Default Fund Additional Margin: The Clearing House may from time to time require an FXCCM to transfer additional amounts of Collateral to the Clearing House to meet the default fund additional margin requirement as determined and notified by the Clearing House to such FXCCM ("DFAM"). The methodology by which the Clearing House determines DFAM is available on the secure area of the Clearing House website. The Clearing House will record any Collateral an FXCCM has provided to meet its DFAM obligation to the FXCCM's Proprietary Account from a ForexClear Clearing Member, in accordance with Regulation 20 (Margin and Collateral), to cover such ForexClear Clearing Member's exposure in relation to the ForexClear Service Default Fund (such Collateral will be recorded in the given ForexClear Clearing Member's "B" account).
- ~~(f)(g)~~ Additional Margin: The Clearing House may require an FXCCM to transfer additional Collateral to the Clearing House (in addition to amounts of Collateral already transferred to the Clearing House in respect of any initial margin and variation margin obligations) as security for the performance by an FXCCM of its obligations to the Clearing House in respect of ForexClear Contracts to which such FXCCM is a party in accordance with Regulation 20 (*Margin and Collateral*). This may be required from time to time where, in the opinion of the Clearing House, the risk inherent in ForexClear Contracts to which such FXCCM is a party not adequately covered by the Collateral transferred in respect of the initial margin or any variation margin obligations. This may cover instances where stress testing losses under various scenarios provided in the ForexClear Default Rules have increased.

- 1.5.7 Initial Margin Management Events Service ("IMMES"): IMMES aims to find risk and initial margin reducing ForexClear Contracts amongst participating FXCCMs. IMMES can be run on all Currency Pairs that are cleared through the ForexClear Service, although the primary focus will be on those Currency Pairs that contribute to the largest Collateral requirement.

FXCCMs who wish to obtain further information about, or to participate in, IMMES should contact ForexClear Risk on 0207 426 7527. To be eligible to participate in IMMES, an FXXCM must enter into an IMMES agreement with the Clearing House (the "**IMMES Agreement**").

## 1.6 General Margining Process

A "**Margin and Settlement Run**" is the process by which the Clearing House calculates an FXCCM's initial margin requirement (if any) and, during an EOD Margin