

VIA CFTC PORTAL

26 January 2023

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

LCH Limited Self-Certification: ForexClear Portfolio Margining of Deliverable and Non-deliverable contracts

Dear Mr. Kirkpatrick,

Pursuant to Commodity Futures Trading Commission ("CFTC") Regulation §40.6(a), LCH Limited ("LCH"), a derivatives clearing organization registered with the CFTC, is submitting for self-certification changes to its Rulebook required to implement a new ForexClear initiative that offers portfolio margining between deliverable and non-deliverable contracts.

Part I: Explanation and Analysis

ForexClear margin requirements and default fund contributions are currently calculated independently for contracts in the deliverable and non-deliverable segments. The new ForexClear project introduces portfolio margining between deliverable and non-deliverable contracts for the eligible G10 currencies¹ cleared across both segments by ForexClear Clearing Members².

The change was supported by the ForexClear Clearing Members seeking margin efficiency through offsetting products across the deliverable and non-deliverable segments. The new offering aims to also encourage clearing of deliverable products overall. According to ForexClear's estimations, portfolio netting may allow initial margin (IM) offsets to increase by 2%, when measured against current levels of total IM across the whole service; higher offsets may be realised by Clearing Members that have exposures in both deliverable and non-deliverable, and as volumes in the deliverable segment grow. The default fund contributions may also be reduced by more than 5% due to expected changes in stress-testing loss and IM requirements.

¹ The offering can be further extended to other currencies, beyond G10. This will be subject to appropriate regulatory notifications ahead of any future changes.

² ForexClear clients will not be able to use this offering as they are currently not eligible to clear deliverable FX.

An LSEG Business

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Margining

The initiative does not change the way IM and variation margin (VM) are calculated and settled. Non-deliverable products will continue to have their final settlement and daily VM payments made via our PPS system. Deliverable products will continue to be settled in conjunction with CLS, with daily VM payments made through our PPS system.

LCH considers that there is no basis risk between non-deliverable and deliverable contracts. However, the operational cost for the conversion of deliverable forwards into non-deliverable forwards (or vice versa), for example for hedging purposes, is addressed by adding a 1bps of add-on margin floor. This will be reassessed on a quarterly basis.

Default Fund

Following the implementation of the proposal, the ForexClear default fund will comprise of the combined deliverable and non-deliverable segments. As a result, Clearing Members will only be required to provide a minimum default fund contribution of USD 5 million once. The floor of USD 70 million will remain the same.

There will be no change to how the default fund will be sized, as it will continue to be based on the sum of the two worst ForexClear Clearing Members stress-testing losses ('STLOIM') under a single scenario over the default fund look-back period of 30 business days (including an additional 10% buffer). It is expected that the default fund contributions will reduce by more than 5% due to changes in stress-testing loss and IM requirements. Stress losses from both segments will be aggregated, allowing full offset across the same deliverable and non-deliverable currency pairs under the three historical, hypothetical and theoretical scenarios currently applied independently to each segment.

The project is expected to go live on **27 February 2023** and the Rulebook will be updated accordingly at that time.

Part II: Description of Rule Changes

The Rulebook changes that accompany this initiative are set out below and are enclosed in the black-line form in the Appendices.

The majority of the changes are in the **Default Rules**, which set out how auction losses will be allocated in the event of a default, based on the combined default fund. The defaulter's margin collateral, then the defaulter's Default Fund Contributions (DFC) and finally the LCH Ltd capital, so-called skin in the game, will continue to be used first in this order in the default waterfall scenario. As the next step, and once the aforementioned resources are fully exhausted, the non-defaulters' DFC will be used to cover the remaining losses.

The existing Auction Incentive Participation (AIP) structure that allocates losses to each Clearing Member based on their performance in the relevant auction remains the same; however, with the implementation of the portfolio margining the auction participants will be divided into three categories based on the products and contracts that they clear.

ForexClear non-defaulting Clearing Members will be divided into the following categories:

- **Aligned Participants:** Non-defaulting members with at least one contract in the same currency pair and product category (NDF, NDO, FXO, Forward or Spot) of the auction portfolio (see section 1.4 on p66).
- **Expected Auction Participants:** Non-defaulting members with at least one contract in same currency pair and contract category (deliverable or non-deliverable) of the auction portfolio (see section 1.4 on p67).
- **Other Participants:** Non-defaulting members with at least one contract in same currency pair of the auction portfolio (see section 1.4 on p70).

Each category of ForexClear non-defaulting Clearing Members, as defined above, will further be divided into three sub-categories of:

- (1) **non-bidders** (to be allocated losses first; loss allocation will be attributed pro-rata);
- (2) **other bidders** (to be allocated further losses; loss allocation will be based on the relative variance between each member's bid and the winning bid (i.e. members who bid furthest away from the winning bid are penalised proportionally more than others)) and;
- (3) **winning bidders** (to be allocated residual losses; loss allocation will be attributed pro-rata).

The Default Rules Section 2.6 on Auction Losses explains the process of loss allocation, whereby (1) **non-bidders**, (2) **other bidders** and (3) **winning bidders** of each ForexClear Clearing Member category, i.e. **Aligned Participants**, **Expected Auction Participants** and **Other Participants**, will respectively be attributed auction losses in the above order.

After the above allocation process, under Section 2.6(c) of the Default Rules, it is explained that any remaining Auction Losses will be attributed pro-rata to the remaining funded DFC of non-defaulting Clearing Members.

Lastly, under section 2.6(d) of the Default Rules, and once all funded DFCs are exhausted, the same process will apply to the unfunded DFCs to the extent that there are any Auction Losses outstanding.

In the **General Regulations**, the definitions of *the ForexClear Deliverable Default Fund Contribution* and *ForexClear Option Service Default Fund Contributions* have been deleted on pages 32 and 33 respectively, as there will be one merged default fund that will accommodate all contributions from the ForexClear Clearing Members irrespective of the products that they clear. Under section 99 ForexClear Option Service, clarification is added on what ForexClear Option Clearing Members can clear.

The **Procedures Section 1 (Clearing Member, Non-member Market Participant and Dealer Status)** para 1.3.6(vi) clarifies that ForexClear Option Clearing Members do not contribute specifically to Option Service Default Fund, as all the contributions will be towards a combined default fund. Towards the end of section 1.3.4, clarification is added on what ForexClear Option Clearing Members can clear, similarly to the changes added in the General Regulations.

The **Procedures Section 2I (ForexClear Clearing Service]** para 1.5.6 clarifies that initial margin obligations will be calculated on an aggregate basis across the ForexClear contracts within non-deliverable and deliverable segments. Section 1.5.6 (e) clarifies that the Settlement Management Margin (SMM) is calculated in respect of FX Deliverable Contracts only.

The text of the changes is attached hereto as:

Appendix I: Default Rules

Appendix II: General Regulations

Appendix III: Procedure Section 1 [Clearing Member, Non-member Market Participant and Dealer Status]

Appendix IV: Procedure Section 2I [ForexClear Clearing Service]

Part III: Core Principle Compliance

LCH has reviewed the proposed changes against the requirements of the Core Principles and finds it will continue to comply with all the requirements and standards set forth therein. Specifically, these rule changes have relevance to Core Principle D (§39.13) (Risk Management) and Core Principle G (§39.16) (Default Procedures) under the CFTC regulations.

The changes described in this filing ensure that LCH meet the objectives of Core Principle D on Risk Management, as ForexClear will continue to calculate and collect the appropriate level of financial resources from the ForexClear Clearing Members in order to effectively manage the risks of the positions cleared. In fact, the proposal does not change the way IM and VM are calculated and settled. Additional margin to cover portfolio liquidity risk will continue to be collected, while taking into account the basis risk between deliverable and non-deliverable pricing. An IM add-on will also be charged, as required, in order to keep the level of offset at no more than 80% between any currency pair within the separate portfolios of deliverable and non-deliverable contracts. Lastly, the default fund will continue to be sized on the basis of the two worst ForexClear Clearing Members stress-testing losses.

The proposed changes are also in line with the Core Principle G on Default Procedure, as a segregated ForexClear default fund will continue to be maintained. The only difference is that ForexClear will combine the deliverable and non-deliverable segments in the same default fund. LCH continues to maintain a Default Management Policy that provides a step-by-step process and procedure for managing a default.

LCH engages its Clearing Members in the design and testing of new products and services at an early stage through working groups, and that was also the case with the ForexClear Portfolio Margining project. The changes to the Rulebook were also subject to a consultation with Clearing Members.

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/rulebooks/proposed-rule-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.

Certification

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

Should you have any questions please contact me at aleksandra.wojcik@lseg.com.

Yours sincerely,

A handwritten signature in blue ink that reads "Aleksandra Wojcik". The signature is written in a cursive, flowing style.

Aleksandra Wojcik
Compliance Officer, LCH Limited

Appendix I: Default Rules

LCH The Markets'
Partner

**LCH LIMITED
DEFAULT RULES**

SCHEDULE 3 FOREXCLEAR DMP ANNEX

1. Scope and interpretation
 - 1.1 The Clearing House has established a ForexClear DMP which will apply to ForexClear Contracts following the Default of a ForexClear Clearing Member and in respect of which, for the avoidance of doubt, the Clearing House will have no recourse to the process of invoicing-back. The fundamental principles of the ForexClear DMP are elaborated to the fullest extent possible in this Annex. Where exhaustive detail cannot be laid out in the provisions of this Annex, the ForexClear DMP will be undertaken on the basis of the principles contained herein.
 - 1.2 The Clearing House has an obligation to ensure the on-going integrity of the ForexClear Service and of the ForexClear Contracts in the interests of the Non-Defaulting FXCCMs. When a ForexClear Clearing Member defaults, Non-Defaulting FXCCMs are required to supply impartial expertise through the ForexClear DMG and to bid for the Auction Portfolios of a Defaulting FXCCM, as laid out in this Annex. In addition, most FXCCMs or their parent companies or subsidiaries or fellow subsidiaries, have direct interests in that integrity, notably as contributors to the various default funds of the Clearing House. Each FXCCM shall take all steps and execute all documents necessary or required by the Clearing House to comply with its obligations as an FXCCM arising out of this ForexClear DMP Annex.
 - 1.3 The initial margining process in respect of ForexClear Contracts will be such so as to ensure that the acceptance of bids for the Auction Portfolio of a Defaulting FXCCM will recognise risk premiums.
 - 1.4 In this Annex:

"**Accepted**" means, in respect of a bid in an Auction, that the Clearing House has accepted such bid as one that it may select as the winning bid for such Auction and "**Accept**" and "**Accepts**" shall have a corresponding meaning;

"**AIP**" has the meaning given in Rule 2.5 of this Annex;

"**AIP Amount**" means, in respect of a Non-Defaulting FXCCM and the Auction Portfolio(s) in a specific Auction Portfolio Currency Pair ~~and Auction Portfolio Category~~, the product of (a) such Non-Defaulting FXCCM's AIP Ratio applicable to the Auction Portfolio Currency Pair ~~and Auction Portfolio Category~~ of such Auction Portfolio(s), and (b) the total of its (i) remaining ForexClear Funded Contribution, and (ii) remaining ForexClear Unfunded Contributions;

"**AIP Ratio**" means, in respect of a Non-Defaulting FXCCM and the Auction Portfolio(s) in a specific Auction Portfolio Currency Pair ~~and Auction Portfolio Category~~, the ratio that (a) the Undiversified Initial Margin Amount for the ForexClear Contracts of such Non-Defaulting FXCCM that are registered in its name at the time of the relevant Default and are in such Auction Portfolio Currency Pair ~~and Auction Portfolio Category~~ bears to; (b) the aggregate Undiversified Initial Margin Amount for all the ForexClear Contracts that are registered in the name of such Non-Defaulting FXCCM at the time of the relevant Default;

"Aligned Participant" means, in respect of an Auction Portfolio, a Non-Defaulting FXCCM that, at the time of the relevant Default, has at least one Aligned Contract registered in its name;

"Aligned Contract" means, in respect of an Auction Portfolio, a ForexClear Contract that (a) is denominated in the same currencies as the Auction Portfolio Currency Pair and (b) belongs to the ForexClear Product Category which corresponds to the Auction Portfolio Product Category of such Auction Portfolio;

"Auction" means the process of bidding by Non-Defaulting FXCCMs for an Auction Portfolio as prescribed by the Clearing House following consultation with the ForexClear DMG from time to time in accordance with Rule 2.3 of this Annex;

"Auction Losses" means, in respect of an Auction Portfolio, all losses arising from:

- (a) the auction and sale of such Auction Portfolio; and
- (b) a change in the net present value of the ForexClear Contracts within such Auction Portfolio during the Auction Losses Calculation Period;

"Auction Losses Calculation Period" means, in respect of an Auction Portfolio and the business day on which the Clearing House auctions and sells such portfolio, the period:

- (a) commencing immediately after the end of day margin and settlement call of the Clearing House for the previous business day; and
- (b) ending at the point at which the Clearing House sells such portfolio;

"Auction Portfolio" means: (a) a Portfolio; or (b) a group of ForexClear Contracts resulting from the splitting of a Portfolio pursuant to Rule 2.1 of this Annex, including in both such cases any connected Hedging ForexClear Contracts concluded by the Clearing House through Risk Neutralisation;

"Auction Portfolio Contract Category" means, in relation to an Auction Portfolio, the ForexClear Contract Category to which the ForexClear Contracts in the Auction Portfolio belong, provided that if an Auction Portfolio contains (a) ForexClear Contracts that belong to one ForexClear Contract Category, and (b) Hedging ForexClear Contracts that belong to the other ForexClear Contract Category, the Auction Portfolio Contract Category shall be that in sub-paragraph (a);

"Auction Portfolio Currency Pair" means in relation to an Auction Portfolio, the Currency Pair in which the ForexClear Contracts in the Auction Portfolio are denominated;

"Auction Portfolio Product Category" means, in respect of an Auction Portfolio, the ForexClear Product Category to which the ForexClear Contracts in the Auction Portfolio belong, provided that if an Auction Portfolio contains (a) ForexClear Contracts that belong to one ForexClear Product Category, and (b) Hedging ForexClear Contracts that belong to any other ForexClear Product Category, the Auction Portfolio Product Category shall be that in sub-paragraph (a);

"**Bankruptcy Code**" means the U.S. Bankruptcy Code, as amended;

"**CEA**" means the U.S. Commodity Exchange Act, as amended;

"**CFTC**" means the U.S. Commodity Futures Trading Commission;

"**Currency Pair**" ~~has the meaning set out at Part A~~ means any of the currency pairs specified in Schedule to the ForexClear Regulations⁶ of the Product Specific Contract Terms and Eligibility Criteria Manual;

"**Derivatives Clearing Organization**" means an organisation designated and registered as such by way of United States Code - Title 7, Chapter 1, paragraph 7a-1;

"**Difference**" means, in respect of an Auction and a ~~Remaining Short Bidder who~~ Non-Defaulting FXCCM's Accepted bid in ~~the~~ such Auction, the difference between ~~(a) such bid and~~ the winning bid for ~~such Auction, and (b) the bid of such Remaining Short Bidder in the Auction;~~ the Auction;

"**Equal Bid**" means an Accepted bid in an Auction, which is equal to another Accepted bid in the same Auction;

"**Expected Auction Participant**" means, in respect of an Auction Portfolio, any Non-Defaulting FXCCM ~~who~~ which, at the time of the relevant Default, has at least one Resembling Contract registered in its name;

"**FCM ForexClear Client Business**" means the provision of FCM ForexClear Client Clearing Services by an FCM Clearing Member to its FCM Clients;

"**FCM ForexClear House Business**" means the FCM ForexClear Contracts entered into by an FCM Clearing Member for its Proprietary Account;

"**ForexClear Contract Category**" means a category of ForexClear Contracts, being either the ForexClear Non-Deliverable Contract Category or the ForexClear Deliverable Contract Category;

"**ForexClear Default Management Process Completion Date**" means the date when the ForexClear Default Management Process in relation to a Default has been completed as determined by the Clearing House in consultation with the ForexClear DMG and notified to all FXCCMs;

"**ForexClear Deliverable Clearing Member**" means an FXCCM who is designated by the Clearing House as a ForexClear Clearing Member eligible to have registered in its name ForexClear Deliverable Contracts;

"**ForexClear Deliverable Contract Category**" means the category of ForexClear Contract which comprises ForexClear Deliverable Contracts registered with the Clearing House;

"**ForexClear Deliverable-Only Clearing Member**" means a ForexClear Clearing Member who is not also a ForexClear Non-Deliverable Clearing Member;

"ForexClear DMG" means the advisory default management group established by the Clearing House pursuant to the terms of this Annex;

"ForexClear DMP" means the processes of the Clearing House outlined in this Annex, as may be supplemented and/or amended from time to time in accordance with this Annex;

"ForexClear Funded Contribution" means the ForexClear Contribution of a ForexClear Clearing Member, excluding any ForexClear Unfunded Contribution in respect of the ForexClear Clearing Member;

"ForexClear Non-Deliverable Clearing Member" means an FXCCM who is designated by the Clearing House as a ForexClear Clearing Member eligible to have registered in its name ForexClear Non-Deliverable Contracts;

"ForexClear Non-Deliverable Contract Category" means the category of ForexClear Contracts which comprises ForexClear Non-Deliverable Contracts registered with the Clearing House;

"ForexClear Non-Deliverable-Only Clearing Member" means a ForexClear Non-Deliverable Clearing Member who is not also a ForexClear Deliverable Clearing Member;

"ForexClear Product Category" means each of the following categories:

(a) the NDF category, comprising ForexClear NDF Contracts;

(b) the NDO category, comprising ForexClear NDO Contracts;

(c) the Deliverable Forward category, comprising ForexClear Deliverable Forward Contracts;

(d) the Option category, comprising ForexClear Option Contracts;

(e) the Spot category, comprising ForexClear Spot Contracts; and

(f) the Swap category, comprising ForexClear Swap Contracts;

"ForexClear Unfunded Contribution" has the meaning assigned to "Unfunded Contribution" in Rule F8 of the ForexClear Default Fund Supplement;

"Guidance" means guidance, in the form of one or more written notices, issued from time to time by or on behalf of the Clearing House to FXCCMs, supplementing the detail or conduct of any aspect of the ForexClear DMP;

"Hedging ForexClear Contract" has the meaning given in Rule 2.2(b)(ii)(B) of this Annex;

"Hedging ForexClear Service Clearing Member" has the meaning given in Rule 2.2(b)(i) of this Annex;

"Loss Portion" means, in respect of an Auction of an Auction Portfolio, ~~a Remaining Short Bidder who bid in such Auction, and~~

(a) a Remaining Aligned Participant Short Bidder for such Auction Portfolio, and

↔(i) Rule 2.6(b)(ii) of this Annex, the amount equal to the product of:

↔(A) the outstanding Auction Losses to be attributed to Remaining Aligned Participant Short Bidders under Rule 2.6(b)(ii) of this Annex, and

↔(B) the proportion that the Difference in respect of such Remaining Aligned Participant Short Bidder and Auction bears to the total Differences in respect of all Remaining Aligned Participant Short Bidders who bid in such Auction, and

↔(ii) Rule 2.6(d)(ii) of this Annex, the amount equal to the product of:

↔(A) the outstanding Auction Losses to be attributed to Remaining Aligned Participant Short Bidders under Rule 2.6(d)(ii) of this Annex, and

↔(B) the proportion that the Difference in respect of such Remaining Aligned Participant Short Bidder and Auction bears to the total Differences in respect of all Remaining Aligned Participant Short Bidders who bid in such Auction;

(b) a Remaining Expected Auction Participant Short Bidder for such Auction Portfolio, and

(i) Rule 2.6(b)(v) of this Annex, the amount equal to the product of:

(A) the outstanding Auction Losses to be attributed to Remaining Expected Auction Participant Short Bidders under Rule 2.6(b)(v) of this Annex, and

(B) the proportion that the Difference in respect of such Remaining Expected Auction Participant Short Bidder and Auction bears to the total Differences in respect of all Remaining Expected Auction Participant Short Bidders who bid in such Auction; and

(ii) Rule 2.6(d)(v) of this Annex, the amount equal to the product of:

(C) the outstanding Auction Losses to be attributed to Remaining Expected Auction Participant Short Bidders under Rule 2.6(d)(v) of this Annex, and

(D) the proportion that the Difference in respect of such Remaining Expected Auction Participant Short Bidder and Auction bears to the total Differences in respect of all Remaining Expected Auction Participant Short Bidders who bid in such Auction;

(c) a Remaining Other Participant Short Bidder for such Auction Portfolio, and

(i) Rule 2.6(b)(viii) of this Annex, the amount equal to the product of:

(A) the outstanding Auction Losses to be attributed to Remaining Other Participant Short Bidders under Rule 2.6(b)(viii) of this Annex, and

(B) the proportion that the Difference in respect of such Remaining Other Participant Short Bidder and Auction bears to the total Differences in respect of all Remaining Other Participant Short Bidders who bid in such Auction; and

(ii) Rule 2.6(d)(viii) of this Annex, the amount equal to the product of:

(A) the outstanding Auction Losses to be attributed to Remaining Other Participant Short Bidders under Rule 2.6(d)(viii) of this Annex, and

(B) the proportion that the Difference in respect of such Remaining Other Participant Short Bidder and Auction bears to the total Differences in respect of all Remaining Other Participant Short Bidders who bid in such Auction;

"Market Losses" means any losses in respect of the implementation of the ForexClear DMP, including losses arising from the execution of hedging ForexClear Transactions for the purpose of Risk Neutralisation, but excluding Auction Losses;

"Non-Bidder" means, in respect of an Auction, ~~an~~ **non-Defaulting** FXCCM, which (a) did not bid in such Auction, or (b) bid in such Auction, but whose bid was not Accepted;

"Non-Defaulter" means an FXCCM that is not a Defaulter;

"Non-Defaulters' Contributions" means the ForexClear Contributions made by Non-Defaulting FXCCMs ~~to the ForexClear Default Fund;~~

"Other Participant" means, in respect of an Auction Portfolio, a Non-Defaulting FXCCM which, at the time of the relevant Default, has at least one Same Currencies Contract registered in its name;

"Out Bid" means a bid in an Auction, which is Accepted and higher than the winning bid in such Auction;

"Out Bidder" means, in respect of an Auction, a Non-Defaulting FXCCM, which submitted an Out Bid in such Auction;

"Portfolio" means, in respect of each Currency Pair, the ForexClear Contracts in such Currency Pair registered in the name of a Defaulting FXCCM in respect of House Clearing Business or the ForexClear Contracts in such Currency Pair registered in the name of a Defaulting FXCCM in respect of Client Clearing Business (or, in the case of an FCM Clearing Member that is a Defaulter, the FCM ForexClear Contracts in such Currency Pair registered in respect of its FCM ForexClear Client Business) and, in both

such cases includes, where relevant, any Hedging ForexClear Contracts connected to the relevant ForexClear Contracts concluded by the Clearing House through Risk Neutralisation. For the avoidance of doubt, a Portfolio containing ForexClear Contracts relating to the Client Clearing Business or FCM ForexClear Client Business of a Defaulting FXCCM will only contain ForexClear Contracts relating to Client Clearing Business or FCM ForexClear Client Business, as appropriate. The Clearing House shall not be entitled to combine client and house positions in a single Portfolio;

"**Recognised Clearing House**" mean an organisation which is declared to be a recognised clearing house by a recognition order (that is for the time in force) made under section 290(1)(b) of the Financial Services and Markets Act 2000;

"Remaining Aligned Participant Short Bidder" means, in respect of an Auction of an Auction Portfolio and

either Rule 2.6(b)(ii) or Rule 2.6(d)(ii) of this Annex, (as applicable), a Short Bidder in such Auction

- (a) that is an Aligned Participant in respect of such Auction Portfolio, and
- (b) whose remaining AIP Amount, ~~within the AIP relating to such Auction Portfolio, which is in the form of ForexClear Funded Contributions and forms part of the AIP relating to such Auction Portfolio, (if Rule 2.6(b)(ii) of this Annex applies) or ForexClear Unfunded Contributions (if Rule 2.6(d)(ii) of this Annex applies),~~ is greater than zero, and;

~~Rule 2.6(d)(ii) of this Annex, a~~ **"Remaining Expected Auction Participant Short Bidder in such Auction"** means, in respect of an Auction of an Auction Portfolio and either Rule 2.6(b)(v) or Rule 2.6(d)(v) of this Annex (as applicable), a Short Bidder in such Auction

- (a) that is an Expected Auction Participant in respect of such Auction Portfolio, and
- (b) whose remaining AIP Amount, ~~which is in the form of ForexClear Unfunded Contributions and forms part of~~ within the AIP relating to such Auction Portfolio, which is in the form of ForexClear Funded Contributions (if Rule 2.6(b)(v) of this Annex applies) or ForexClear Unfunded Contributions (if Rule 2.6(d)(v) of this Annex applies), is greater than zero;

"Remaining Other Participant Short Bidder" means, in respect of an Auction of an Auction Portfolio and either Rule 2.6(b)(viii) or 2.6(d)(viii) of this Annex, a Short Bidder in such Auction

- (a) that is an Other Participant in respect of such Auction Portfolio, and
- (b) whose remaining AIP Amount within the AIP relating to such Auction Portfolio, which is in the form of ForexClear Funded Contributions (if Rule 2.6(b)(viii) of this Annex applies) or ForexClear Unfunded Contributions (if Rule 2.6(d)(viii) of this Annex applies), is greater than zero;

"**Resembling Contract**" means, in respect of ~~the ForexClear Contracts in~~ an Auction Portfolio, a ForexClear Contract ~~registered in the name of a Non-Defaulting FXCCM~~

that (a) is denominated in the same currencies as the Auction Portfolio Currency Pair and (b) belongs to the ForexClear Contract Category which corresponds to the Auction Portfolio Contract Category of such Auction Portfolio;

"**Risk Neutralisation**" means the process of reducing the market risk and/or settlement risk associated with a Defaulting FXCCM's obligations to the Clearing House under ForexClear Contracts by hedging the exposure before the auction process as described in Rule 2.2 of this Annex;

"Same Currencies Contract" means, in respect of an Auction Portfolio, a ForexClear Contract that is denominated in the same currencies as the Auction Portfolio Currency Pair;

"**Short Bidder**" means, in respect of an Auction of an Auction Portfolio, a Non-Defaulting FXCCM that ~~(a) is an Expected Auction Participant for such Auction Portfolio, and (b)~~ submitted a bid, which is Accepted, but lower than the winning bid, in such Auction; and

"**Undiversified Initial Margin Amount**" means, in respect of the ForexClear Contracts in a ~~specific~~ Currency Pair ~~and ForexClear Contract Category~~, the required initial margin amount for such ForexClear Contracts, as determined by the Clearing House.

1.5 Terms used, and not defined, in this Annex shall have the meanings given to them in the Regulations or FCM Regulations.

2. ForexClear DMP

The ForexClear DMP in respect of: (a) ForexClear Clearing House Business; (b) Relevant Auction Contracts in respect of ForexClear Client Clearing Business; (c) FCM ForexClear House Business; and (d) FCM ForexClear Client Business, shall involve the stages described in this Rule 2.

Resources will be allocated based on the order and proportions described in Rules 2.4 to 2.6 of this Annex. Allocation of resources pursuant to a process or the order in which processes are carried out may reduce the resources which are available to meet the losses in respect of any subsequent process and, consequently, impact the allocation of losses amongst Non-Defaulters. For the avoidance of doubt, the Clearing House may in its sole and absolute discretion determine the order in which it constructs Auction Portfolios and auctions Auction Portfolios.

2.1 ***Portfolio Splitting***

The Clearing House, in consultation with and with the assistance of the ForexClear DMG, shall determine the composition of each Auction Portfolio and shall have the discretion to divide a Portfolio into two or more individual Auction Portfolios with the aim of facilitating the efficiency of, and reducing the risk associated with, the auction process provided for in Rule 2.3 of this Annex. The overriding principle behind the portfolio splitting process is that the Clearing House will structure Auction Portfolios with the intention of ensuring a ForexClear DMP which best protects the resources of the Clearing House, subject to compliance with applicable provisions of the CEA and the CFTC Regulations regarding segregation of client assets. Therefore, nothing in this

Rule 2.1 shall be deemed to imply: (a) that the Clearing House is under any obligation to split a particular Portfolio of a Defaulting FXCCM (regardless of the number of ForexClear Contracts that such Portfolio contains); or (b) any particular requirements as to the composition of an individual Auction Portfolio (including in terms of combining or separating ForexClear Contracts belonging to different ForexClear Contract Categories), except that, subject to overriding risk procedures it is broadly anticipated that the parameters of any Auction Portfolio shall not be materially different to those set out in the Clearing House's fire drill.

2.2 **Risk Neutralisation**

The Clearing House will, in consultation with and with the assistance of the ForexClear DMG, reduce the market risk and/or settlement risk associated with a Defaulting FXCCM's obligations to the Clearing House so far as is reasonably practicable by hedging the Clearing House's exposure in open ForexClear Contracts to which the Defaulting FXCCM is party, where such hedging may be achieved, without limitation, by:

- (a) the splitting of Portfolios pursuant to Rule 2.1; and/or
- (b) the Clearing House, for the purpose of hedging:
 - (i) executing one or more new ForexClear Transactions and/or new FCM ForexClear Transactions (as applicable) with Non-Defaulting FXCCMs (each, a "**Hedging ForexClear Service Clearing Member**") on the basis of a separate agreement between the Clearing House and the relevant Hedging ForexClear Service Clearing Member; and
 - (ii) clearing each such ForexClear Transaction and/or FCM ForexClear Transaction (as applicable) in accordance with, and subject to, the Rulebook and/or FCM Rulebook (as applicable), such that:
 - (A) the Hedging ForexClear Service Clearing Member's side of such transaction is registered as a ForexClear Contract between the Clearing House and the Hedging ForexClear Service Clearing Member; and
 - (B) the Clearing House's side of such transaction is registered as a ForexClear Contract between the Defaulting ForexClear Service Clearing Member and the Clearing House (pursuant to the Clearing House's rights under Default Rule 6(a)) (any such ForexClear Contract, a "**Hedging ForexClear Contract**").

The Clearing House may transfer one or more Hedging ForexClear Service Contracts from one account to any other account in accordance with Default Rule 6(g) (including any Hedged Account (in the circumstances provided for in the Rulebook)).

The Clearing House may undertake Risk Neutralisation before, as part of, concurrently with and/or subsequent to the splitting of a Portfolio pursuant to Rule ~~2.12.4~~. Where a Hedging ForexClear Service Clearing Member executes a hedging ForexClear Transaction or FCM ForexClear Transaction (as applicable) with the Clearing House,

it agrees to present such ForexClear Transaction or FCM ForexClear Transaction for clearing with the Clearing House in accordance with, and subject to, the Rulebook or FCM Rulebook (as applicable) and within the required timeframe under all Applicable Law (and, in any event, no later than the time that the ForexClear service closes on the day on which it executes such ForexClear Transaction or FCM ForexClear Transaction).

2.3 *Auction*

- (a) Following the completion of Risk Neutralisation, the Clearing House shall auction each Auction Portfolio to Non-Defaulting FXCCMs in order to:
 - (i) seek to re-establish with those Non-Defaulting FXCCMs the positions the Clearing House had with the Defaulting FXCCM under the relevant ForexClear Contracts; and
 - (ii) seek to determine the net value of those ForexClear Contracts for the purposes of determining the extent of any losses to the Clearing House which are to be reduced or borne in the manner provided by Rule 15 of the Default Rules or, as the case may be, the extent of any gains to the Clearing House.

The Clearing House, in consultation with the ForexClear DMG, shall prescribe such procedures (in addition to those set out in this Annex) for the conduct of the auction process as it considers reasonably appropriate from time to time.

- (b) The Clearing House shall notify each Non-Defaulting FXCCM of all details that may be reasonably required in relation to an Auction Portfolio before the relevant Auction.
- (c) The auction process may take place over a number of days and Auctions of different Auction Portfolios may take place at different times.
- (d) The relevant Non-Defaulting FXCCMs will submit bids to the Clearing House representatives on the ForexClear DMG, who will ensure that the identities of the bidders are not revealed to the FXCCM representatives on the ForexClear DMG. For the avoidance of doubt, a Non-Defaulting FXCCM is entitled to submit a bid on behalf of one or more affiliated Non-Defaulting FXCCMs. The ForexClear DMG will oversee the bidding process in a manner which it considers best protects the resources of the Clearing House and ensures an orderly process.
- (e) The Clearing House, in consultation with the ForexClear DMG, will have full discretion in deciding whether to Accept a particular bid in an Auction and in deciding which Accepted bid it will select as the winning bid.
- (f) In the case of an Auction in which no bid is Accepted or received (as the case may be), one or more further Auctions will be held in relation to the relevant Auction Portfolio.
- (g) As soon as practicable following the submission of bids in an Auction, if:

- (i) one or more bid(s) is Accepted, the Clearing House will notify the Expected Auction Participants together with any other Non-Defaulting FXCCMs which participated in the Auction that one or more bid(s) is Accepted, and shall notify the FXCCM who submitted the winning bid that it is the winner of the Auction; and
 - (ii) no bid is Accepted, the Clearing House will notify all Non-Defaulting FXCCMs of the details of any further Auction.
- (h) Each Non-Defaulting FXCCM agrees to use all reasonable efforts to make a bid in an Auction for an Auction Portfolio in respect of which it is an Expected Auction Participant.

2.4 **Market Losses**

- (a) Market Losses will be met using the available resources as set out in Rule 15 of the Default Rules. Where the Clearing House determines that there are insufficient resources under Rules 15(a) to 15(d) of the Default Rules (inclusive) to meet such losses, they will be attributed to Non-Defaulters' remaining ForexClear Contributions in the following order and proportions:
- (i) Market Losses will be attributed to the remaining ForexClear Funded Contribution of each Non-Defaulter *pro rata* according to the proportion that the remaining ForexClear Funded Contribution of such Non-Defaulter bears to the total of all such remaining ForexClear Funded Contributions; and
 - (ii) if and to the extent there are Market Losses outstanding after the attribution process in Rule 2.4(a)(i) of this Annex, those Market Losses will be attributed to the remaining ForexClear Unfunded Contributions of each Non-Defaulter *pro rata* according to the proportion that the remaining ForexClear Unfunded Contributions of such Non-Defaulter bear to the total of all such remaining ForexClear Unfunded Contributions.
- (b) The Clearing House will attribute Market Losses (if any) pursuant to Rule 2.4(a) of this Annex on each business day during the implementation of the ForexClear DMP at the same time as its end of day margin and settlement call.

2.5 **Auction Incentive Pools**

- (a) The Clearing House will calculate an auction incentive pool (each, an "AIP") for the Auction Portfolio(s) in a specific Auction Portfolio Currency Pair ~~and Auction Portfolio Category~~.
- (b) The AIP for the Auction Portfolio(s) in a specific Auction Portfolio Currency Pair ~~and Auction Portfolio Category~~ will be the sum of the AIP Amounts for such Auction Portfolio(s).
- (c) For the avoidance of doubt, an AIP and the AIP Amounts which comprise such AIP will change as the remaining ForexClear Funded Contributions and

remaining ForexClear Unfunded Contributions change throughout the implementation of the ForexClear DMP.

2.6 *Auction Losses – Auction Portfolios*

- (a) Auction Losses, in respect of an Auction Portfolio, will be met using available resources as set out in Rule 15 of the Default Rules. Where the Clearing House determines there are insufficient resources under Rules 15(a) to (d) of the Default Rules (inclusive) to meet such losses, they will be attributed to Non-Defaulters' remaining ForexClear Contributions in accordance with the loss attribution process described in Rules 2.6(b) to 2.6(e) in this Annex.
- (b) In the case of an Auction of an Auction Portfolio, for which the Clearing House determines there are insufficient resources under Rule 15(a) to 15(d) of the Default Rules (inclusive) to meet the Auction Losses for such Auction, such losses will be met first by the Non-Defaulters' remaining ForexClear Funded Contributions that are included in the AIP relating to the Auction Portfolio in the following order and proportions:

~~the~~ Aligned Participants

- (i) ~~The~~ Auction Losses will be attributed to the remaining AIP Amounts of those Non-Defaulting FXCCMs ~~which that~~ are both ~~Expected Auction~~ Aligned Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction. Auction Losses will be attributed to the remaining AIP Amount of each such Non-Defaulting FXCCM pursuant to this sub-paragraph (i) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of all Non-Defaulting FXCCMs ~~which that~~ are both ~~Expected Auction~~ Aligned Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction;
- (ii) if and to the extent there are Auction Losses outstanding after the attribution process in subparagraph (i) above, those Auction Losses will be attributed to the remaining AIP Amounts of the Remaining Aligned Participant Short Bidders for the Auction Portfolio in accordance with this sub-paragraph (ii). Where the Loss Portion applicable to:
 - (A) ~~the Loss Portion applicable to~~ each Remaining Aligned Participant Short Bidder is less than or equal to its remaining AIP Amount, then the Clearing House will, in respect of each Remaining Aligned Participant Short Bidder, attribute Auction Losses equal to the Loss Portion applicable to the Remaining Aligned Participant Short Bidder to its remaining AIP Amount; or
 - (B) ~~the Loss Portion applicable to~~ one or more Remaining Aligned Participant Short Bidders is greater than its remaining AIP Amount, then the Clearing House will attribute Auction Losses to all of the remaining AIP Amounts of such Remaining Aligned Participant Short Bidders only (so that they cease to be

Remaining Aligned Participant Short Bidders for the purposes of this Rule 2.6(b)(ii) and the Auction) and will repeat the loss attribution process in this Rule 2.6(b)(ii) for any outstanding Auction Losses until the Auction Losses are fully met or the remaining AIP Amounts of all Remaining Aligned Participant Short Bidders for the Auction Portfolio are fully attributed; ~~and,~~

- (iii) ~~if~~ and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (ii) above, those Auction Losses will be attributed to the remaining AIP Amount of the Non-Defaulting FXCCM ~~who~~that is an Aligned Participant in respect of the Auction Portfolio and submitted the winning bid in the Auction, ~~together with (where (if applicable) and~~ the remaining AIP Amount of any Non-Defaulting FXCCM ~~who~~that is an Aligned Participant in respect of the Auction Portfolio and submitted a bid which was an Equal Bid or an Out Bid in relation to ~~that~~the winning bid; ~~(if applicable)~~. The outstanding Auction Losses will be attributed to the remaining AIP Amount of each such FXCCM pursuant to this sub-paragraph (iii) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of: (A) the ~~FXCCM which~~Aligned Participant that submitted the winning bid in the Auction; ~~(if applicable)~~; (B) any ~~FXCCMs which~~Aligned Participants that submitted an Equal Bid to such winning bid in the Auction; and (C) any ~~FXCCMs which~~Aligned Participants that were Out Bidders in the Auction.

Expected Auction Participants

- (iv) If and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (iii) above, those Auction Losses will be attributed to the remaining AIP Amounts of those Non-Defaulting FXCCMs that are both Expected Auction Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction. Auction Losses will be attributed to the remaining AIP Amount of each such Non-Defaulting FXCCM pursuant to this sub-paragraph (iv) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of all Non-Defaulting FXCCMs that are both Expected Auction Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction.
- (v) If and to the extent there are Auction Losses outstanding after the attribution process in subparagraph (iv) above, those Auction Losses will be attributed to the remaining AIP Amounts of the Remaining Expected Auction Participant Short Bidders for the Auction Portfolio in accordance with this sub-paragraph (v). Where the Loss Portion applicable to:
- (A) each Remaining Expected Auction Participant Short Bidder is less than or equal to its remaining AIP Amount, then the Clearing House will, in respect of each Remaining Expected Auction Participant Short Bidder, attribute Auction Losses equal to the

Loss Portion applicable to the Remaining Expected Auction Participant Short Bidder to its remaining AIP Amount; or

- (B) one or more Remaining Expected Auction Participant Short Bidders is greater than its remaining AIP Amount, then the Clearing House will attribute Auction Losses to all of the remaining AIP Amounts of such Remaining Expected Auction Participant Short Bidders only (so that they cease to be Remaining Expected Auction Participant Short Bidders for the purposes of this Rule 2.6(b)(v) and the Auction) and will repeat the loss attribution process in this Rule 2.6(b)(v) for any outstanding Auction Losses until the Auction Losses are fully met or the remaining AIP Amounts of all Remaining Expected Auction Participant Short Bidders for the Auction Portfolio are fully attributed.
- (vi) If and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (v) above, those Auction Losses will be attributed to the remaining AIP Amount of the Non-Defaulting FXCCM that is an Expected Auction Participant in respect of the Auction Portfolio and submitted the winning bid in the Auction (if applicable) and the remaining AIP Amount of any Non-Defaulting FXCCM that is an Expected Auction Participant in respect of the Auction Portfolio and submitted a bid which was an Equal Bid or an Out Bid in relation to the winning bid (if applicable). The outstanding Auction Losses will be attributed to the remaining AIP Amount of each such FXCCM pursuant to this sub-paragraph (vi) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of: (A) the Expected Auction Participant that submitted the winning bid in the Auction (if applicable); (B) any Expected Auction Participants that submitted an Equal Bid to such winning bid in the Auction; and (C) any Expected Auction Participants that were Out Bidders in the Auction.

Other Participants

- (vii) If and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (vi) above, those Auction Losses will be attributed to the remaining AIP Amounts of those Non-Defaulting FXCCMs that are both Other Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction. Auction Losses will be attributed to the remaining AIP Amount of each such Non-Defaulting FXCCM pursuant to this sub-paragraph (vii) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of all Non-Defaulting FXCCMs that are both Other Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction.
- (viii) If and to the extent there are Auction Losses outstanding after the attribution process in subparagraph (vii) above, those Auction Losses will be attributed to the remaining AIP Amounts of the Remaining Other

Participant Short Bidders for the Auction Portfolio in accordance with this sub-paragraph (viii). Where the Loss Portion applicable to:

(A) each Remaining Other Participant Short Bidder is less than or equal to its remaining AIP Amount, then the Clearing House will, in respect of each Remaining Other Participant Short Bidder, attribute Auction Losses equal to the Loss Portion applicable to the Remaining Other Participant Short Bidder to its remaining AIP Amount; or

(B) one or more Remaining Other Participant Short Bidders is greater than its remaining AIP Amount, then the Clearing House will attribute Auction Losses to all of the remaining AIP Amounts of such Remaining Other Participant Short Bidders only (so that they cease to be Remaining Other Participant Short Bidders for the purposes of this Rule 2.6(b)(viii) and the Auction) and will repeat the loss attribution process in this Rule 2.6(b)(viii) for any outstanding Auction Losses until the Auction Losses are fully met or the remaining AIP Amounts of all Remaining Other Participant Short Bidders for the Auction Portfolio are fully attributed.

(ix) If and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (viii) above, those Auction Losses will be attributed to the remaining AIP Amount of the Non-Defaulting FXCCM that is an Other Participant in respect of the Auction Portfolio and submitted the winning bid in the Auction (if applicable) and the remaining AIP Amount of any Non-Defaulting FXCCM that is an Other Participant in respect of the Auction Portfolio and submitted a bid which was an Equal Bid or an Out Bid in relation to the winning bid (if applicable). The outstanding Auction Losses will be attributed to the remaining AIP Amount of each such FXCCM pursuant to this sub-paragraph (ix) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of: (A) the Other Participant that submitted the winning bid in the Auction (if applicable); (B) any Other Participants that submitted an Equal Bid to such winning bid in the Auction; and (C) any Other Participants that were Out Bidders in the Auction.

(c) If and to the extent that there are Auction Losses outstanding following the attribution process in Rule 2.6(b) of this Annex, then:

~~where the Auction Portfolio Category of the Auction Portfolio is the ForexClear Non-Deliverable Contract Category,~~ those Auction Losses will be attributed:

~~(A) first,~~ to the remaining ForexClear Funded Contribution of each Non-Defaulting ForexClear ~~Non-Deliverable~~ Clearing Member *pro rata* according to the proportion that the remaining

ForexClear Funded Contribution of such Non-Defaulting ForexClear ~~Non-Deliverable~~ Clearing Member bears to the total of the remaining ForexClear Funded Contributions of all Non-Defaulting ForexClear ~~Non-Deliverable Clearing Members~~; and

~~(B) then, to the remaining ForexClear Funded Contribution of each Non-Defaulting ForexClear Deliverable-Only Clearing Member *pro rata* according to the proportion that the remaining ForexClear Funded Contribution of such Non-Defaulting ForexClear Deliverable-Only Clearing Member bears to the total of the remaining ForexClear Funded Contributions of all Non-Defaulting ForexClear Deliverable-Only Clearing Members; or~~

~~(ii) where the Auction Portfolio Category of the Auction Portfolio is the ForexClear Deliverable Contract Category, those Auction Losses will be attributed:~~

~~(A) first, to the remaining ForexClear Funded Contribution of each Non-Defaulting ForexClear Deliverable Clearing Member *pro rata* according to the proportion that the remaining ForexClear Funded Contribution of such Non-Defaulting ForexClear Deliverable Clearing Member bears to the total of the remaining ForexClear Funded Contributions of all Non-Defaulting ForexClear Deliverable Clearing Members; and~~

~~then, to the remaining ForexClear Funded Contribution of each Non-Defaulting ForexClear Non-Deliverable-Only Clearing Member *pro rata* according to the proportion that the remaining ForexClear Funded Contribution of such Non-Defaulting ForexClear Non-Deliverable-Only Clearing Member bears to the total of the remaining ForexClear Funded Contributions of all Non-Defaulting ForexClear Non-Deliverable-Only Clearing Members.~~

(d) If and to the extent there are Auction Losses outstanding following the attribution process in Rule 2.6(c) of this Annex, the remaining ForexClear Unfunded Contributions that are included in the AIP relating to the Auction Portfolio will be used in the following order:

~~the~~ Aligned Participants

(i) The Auction Losses will be attributed to remaining AIP Amounts of those Non-Defaulting FXCCMs ~~which~~that are both ~~Expected Auction~~Aligned Participants, in respect of the Auction Portfolio, and Non-Bidders in the relevant Auction. Auction Losses will be attributed to the remaining AIP Amount of each such Non-Defaulting FXCCM pursuant to this sub-paragraph (iv) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of all FXCCMs ~~which~~that are both ~~Expected Auction~~Aligned Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction;.

- (ii) ~~if~~ and to the extent there are Auction Losses outstanding after the attribution process referred to in sub-paragraph (iv) above, those Auction Losses will be attributed to the remaining AIP Amounts of the Remaining Aligned Participant Short Bidders for the Auction Portfolio in accordance with this sub-paragraph (ii). Where the Loss Portion applicable to:
- (A) ~~the Loss Portion applicable to~~ each Remaining Aligned Participant Short Bidder is less than or equal to its remaining AIP Amount, then the Clearing House will, in respect of each Remaining Aligned Participant Short Bidder, attribute Auction Losses equal to the Loss Portion applicable to the Remaining Aligned Participant Short Bidder to its remaining AIP Amount; or
- (B) ~~the Loss Portion applicable to~~ one or more Remaining Aligned Participant Short Bidders is greater than its remaining AIP Amount, then the Clearing House will attribute Auction Losses to all of the remaining AIP Amounts of such Remaining Aligned Participant Short Bidders only (so that they cease to be Remaining Aligned Participant Short Bidders for the purposes of this Rule 2.6(d)(ii) and the Auction) and will repeat the loss attribution process in this Rule 2.6(d)(ii) for any outstanding Auction Losses until the Auction Losses are fully met or the remaining AIP Amounts of all Remaining Aligned Participant Short Bidders for the Auction Portfolio are fully attributed; ~~and~~.
- (iii) ~~if~~ and to the extent there are Auction Losses outstanding after the attribution process referred to in sub-paragraph (iv) above, those Auction Losses will be attributed to the remaining AIP Amounts of the Non-Defaulting FXCCM that is an Aligned Participant in respect of the Auction Portfolio and ~~who~~ submitted the winning bid, ~~together with~~ ~~(where (if applicable) and~~ the remaining AIP Amount of any Non-Defaulting FXCCM ~~an Out who~~ that is an Aligned Participant in respect of the Auction Portfolio and submitted a bid which was an Equal Bid or a Higher Bid in relation to ~~that~~ the winning bid; ~~(if applicable)~~. The outstanding Auction Losses will be attributed to the remaining AIP Amount of each such Non-Defaulting FXCCM pursuant to this sub-paragraph (b) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of: (A) the ~~FXCCM which~~ Aligned Participant that submitted the winning bid in the Auction; ~~(if applicable)~~; (B) any ~~FXCCMs which~~ Aligned Participants that submitted an Equal Bid to such winning bid in the Auction; and (C) any ~~FXCCMs which~~ Aligned Participants that were Out Bidders in the Auction.

Expected Auction Participants

- (iv) If and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (iii) above, those Auction Losses will be attributed to the remaining AIP Amounts of those Non-

Defaulting FXCCMs that are both Expected Auction Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction. Auction Losses will be attributed to the remaining AIP Amount of each such Non-Defaulting FXCCM pursuant to this sub-paragraph (iv) pro rata according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of all Non-Defaulting FXCCMs that are both Expected Auction Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction.

(v) If and to the extent there are Auction Losses outstanding after the attribution process in subparagraph (iv) above, those Auction Losses will be attributed to the remaining AIP Amounts of the Remaining Expected Auction Participant Short Bidders for the Auction Portfolio in accordance with this sub-paragraph (v). Where the Loss Portion applicable to:

(A) each Remaining Expected Auction Participant Short Bidder is less than or equal to its remaining AIP Amount, then the Clearing House will, in respect of each Remaining Expected Auction Participant Short Bidder, attribute Auction Losses equal to the Loss Portion applicable to the Remaining Expected Auction Participant Short Bidder to its remaining AIP Amount; or

(B) one or more Remaining Expected Auction Participant Short Bidders is greater than its remaining AIP Amount, then the Clearing House will attribute Auction Losses to all of the remaining AIP Amounts of such Remaining Expected Auction Participant Short Bidders only (so that they cease to be Remaining Expected Auction Participant Short Bidders for the purposes of this Rule 2.6(d)(v) and the Auction) and will repeat the loss attribution process in this Rule 2.6(d)(v) for any outstanding Auction Losses until the Auction Losses are fully met or the remaining AIP Amounts of all Remaining Expected Auction Participant Short Bidders for the Auction Portfolio are fully attributed.

(vi) If and to the extent there are Auction Losses outstanding after the attribution process in subparagraph (v) above, those Auction Losses will be attributed to the remaining AIP Amount of the Non-Defaulting FXCCM that is an Expected Auction Participant in respect of the Auction Portfolio and submitted the winning bid in the Auction (if applicable) and the remaining AIP Amount of any Non-Defaulting FXCCM that is an Expected Auction Participant in respect of the Auction Portfolio and submitted a bid which was an Equal Bid or an Out Bid in relation to the winning bid (if applicable). The outstanding Auction Losses will be attributed to the remaining AIP Amount of each such FXCCM pursuant to this sub-paragraph (vi) pro rata according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of: (A) the Expected Auction Participant that submitted the winning bid in the Auction (if applicable); (B) any Expected Auction Participants that submitted an Equal Bid to

such winning bid in the Auction; and (C) any Expected Auction Participants that were Out Bidders in the Auction.

Other Participants

- (vii) If and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (vi) above, those Auction Losses will be attributed to the remaining AIP Amounts of those Non-Defaulting FXCCMs that are both Other Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction. Auction Losses will be attributed to the remaining AIP Amount of each such Non-Defaulting FXCCM pursuant to this sub-paragraph (iv) pro rata according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of all Non-Defaulting FXCCMs that are both Other Participants, in respect of the Auction Portfolio, and Non-Bidders in the Auction.
- (viii) If and to the extent there are Auction Losses outstanding after the attribution process in subparagraph (vii) above, those Auction Losses will be attributed to the remaining AIP Amounts of the Remaining Other Participant Short Bidders for the Auction Portfolio in accordance with this sub-paragraph (viii). Where the Loss Portion applicable to:
- (A) each Remaining Other Participant Short Bidder is less than or equal to its remaining AIP Amount, then the Clearing House will, in respect of each Remaining Other Participant Short Bidder, attribute Auction Losses equal to the Loss Portion applicable to the Remaining Other Participant Short Bidder to its remaining AIP Amount; or
- (B) one or more Remaining Other Participant Short Bidders is greater than its remaining AIP Amount, then the Clearing House will attribute Auction Losses to all of the remaining AIP Amounts of such Remaining Other Participant Short Bidders only (so that they cease to be Remaining Other Participant Short Bidders for the purposes of this Rule 2.6(d)(viii) and the Auction) and will repeat the loss attribution process in this Rule 2.6(d)(viii) for any outstanding Auction Losses until the Auction Losses are fully met or the remaining AIP Amounts of all Remaining Other Participant Short Bidders for the Auction Portfolio are fully attributed.
- (ix) If and to the extent there are Auction Losses outstanding after the attribution process in sub-paragraph (viii) above, those Auction Losses will be attributed to the remaining AIP Amount of the Non-Defaulting FXCCM that is an Other Participant in respect of the Auction Portfolio and submitted the winning bid in the Auction (if applicable) and the remaining AIP Amount of any Non-Defaulting FXCCM that is an Other Participant in respect of the Auction Portfolio and submitted a bid which was an Equal Bid or an Out Bid in relation to the winning bid (if applicable). The outstanding Auction Losses will be attributed to the

remaining AIP Amount of each such FXCCM pursuant to this subparagraph (vi) *pro rata* according to the proportion that such FXCCM's remaining AIP Amount bears to the total of the remaining AIP Amounts of: (A) the Other Participant that submitted the winning bid in the Auction (if applicable); (B) any Other Participants that submitted an Equal Bid to such winning bid in the Auction; and (C) any Other Participants that were Out Bidders in the Auction.

(e) If and to the extent there are Auction Losses outstanding following the attribution process referred to in Rule 2.6(d) of this Annex, then:

(i) ~~where the Auction Portfolio Category of the Auction Portfolio is the ForexClear Non-Deliverable Contract Category,~~ those Auction Losses will be attributed:

~~first,~~ to the remaining ForexClear Unfunded Contributions of each Non-Defaulting ForexClear Non-Deliverable Clearing Member *pro rata* according to the proportion that the remaining ForexClear Unfunded Contributions of such Non-Defaulting ForexClear Non-Deliverable Clearing Member bear to the total of the remaining ForexClear Unfunded Contributions of all Non-Defaulting ForexClear Non-Deliverable Clearing Members; ~~and,~~

~~(B) then, to the remaining ForexClear Unfunded Contributions of each Non-Defaulting ForexClear Deliverable Only Clearing Member *pro rata* according to the proportion that the remaining ForexClear Unfunded Contributions of such Non-Defaulting ForexClear Deliverable Only Clearing Member bear to the total of the remaining ForexClear Unfunded Contributions of all Non-Defaulting ForexClear Deliverable Only Clearing Members; or~~

~~(ii) Where the Auction Portfolio Category of the Auction Portfolio is the ForexClear Deliverable Contract Category, those Auction Losses will be attributed:~~

~~(A) first, to the remaining ForexClear Unfunded Contributions of each Non-Defaulting ForexClear Deliverable Clearing Member *pro rata* according to the proportion that the remaining ForexClear Unfunded Contributions of such Non-Defaulting ForexClear Deliverable Clearing Member bear to the total of the remaining ForexClear Unfunded Contributions of all Non-Defaulting ForexClear Deliverable Clearing Members; and~~

~~(B) then, to the remaining ForexClear Unfunded Contributions of each Non-Defaulting ForexClear Non-Deliverable Only Clearing Member *pro rata* according to the proportion that the remaining ForexClear Unfunded Contributions of such Non-Defaulting ForexClear Non-Deliverable Only Clearing Member bear to the total of the remaining ForexClear Unfunded~~

2.7 *Gains*

- (a) If, at any point during the ForexClear DMP, but before the implementation of the ForexClear Loss Distribution Process, the Clearing House determines that gains have accrued in respect of any Auction Portfolio(s), it will reimburse each Non-Defaulter (to the extent that Market Losses or Auction Losses have been attributed to it pursuant to this Annex) by the amount of such gains in the following order and proportions:
- (i) The Clearing House will reimburse each Non-Defaulter for such gains *pro rata* according to the proportion that the Market Losses attributed to such Non-Defaulter's ForexClear Unfunded Contributions bear to the total Market Losses attributed to all Non-Defaulters' ForexClear Unfunded Contributions, up to a maximum of the Market Losses attributed to such Non-Defaulter's ForexClear Unfunded Contributions.
 - (ii) If and to the extent there are gains remaining to be reimbursed following the process described in Rule 2.7(a)(i) of this Annex, the Clearing House will reimburse each Non-Defaulter for such gains *pro rata* according to the proportion that the Auction Losses attributed to such Non-Defaulter's ForexClear Unfunded Contributions bear to the total Auction Losses attributed to all Non-Defaulters' ForexClear Unfunded Contributions, up to a maximum of the Auction Losses attributed to such Non-Defaulter's ForexClear Unfunded Contributions.
 - (iii) If and to the extent there are gains remaining to be reimbursed following the process described in Rule 2.7(a)(ii) of this Annex, the Clearing House will reimburse each Non-Defaulter for such gains *pro rata* according to the proportion that the Market Losses attributed to such Non-Defaulter's ForexClear Funded Contribution bear to the total Market Losses attributed to all Non-Defaulter's ForexClear Funded Contributions, up to a maximum of the Market Losses attributed to such Non-Defaulter's ForexClear Funded Contribution.
 - (iv) If and to the extent there are gains remaining to be reimbursed following the process described in Rule 2.7(a)(iii) of this Annex, the Clearing House will reimburse each Non-Defaulter for such gains *pro rata* according to the proportion that the Auction Losses attributed to such Non-Defaulter's ForexClear Funded Contribution bear to the total Auction Losses attributed to all Non-Defaulter's ForexClear Funded Contributions, up to a maximum of the Auction Losses attributed to such Non-Defaulter's ForexClear Funded Contribution.
- (b) The Clearing House's calculation of the amount by which a gain that is reimbursed to a Non-Defaulter pursuant to Rule 2.7(a)(i), (ii), (iii) and/or (iv) of this Annex increases such Non-Defaulter's ForexClear Contributions is determinative and final and, after such reimbursement and increase, the totality

of such Non-Defaulter's ForexClear Contributions will be subject to subsequent attribution of losses (if any) pursuant to this Annex.

- (c) Rule F12 of the ForexClear Default Fund Supplement will not apply to the gains reimbursed pursuant to this Rule 2.7.
3. Default Management in respect of ForexClear Client Clearing Business and FCM ForexClearClient Business Client Business
 - 3.1 The ForexClear DMP for any ForexClear Contract in respect of ForexClear Client Clearing Business shall be conducted in accordance with the Client Clearing Annex (which such stages, for the avoidance of doubt, will result in a ForexClear Client Contract in respect of ForexClear Clearing Business being dealt with in accordance with Rule 2 above in the event that it cannot be ported by the Clearing House).
 - 3.2 The ForexClear DMP for any FCM ForexClear Contract forming part of a Defaulter's FCM ForexClear Client Business shall be conducted in accordance with FCM Regulation 13(e) (Transfer). The provisions of Default Rule 10 shall also apply.
 4. Transfer of Cash Flows / Registration of Positions
 - 4.1 Following the disposal of an Auction Portfolio by way of Auction (and notwithstanding that other Auction Portfolios of the Defaulting FXCCM may not yet have been auctioned) the Clearing House, will, with the co-operation of the Non-Defaulting FXCCMs, transfer to the Non-Defaulting FXCCM whose bid won the relevant Auction Portfolio the rights and obligations, from the Defaulting FXCCM, arising out of the positions which that Non-Defaulting FXCCM has successfully bid for under the ForexClear DMP. Such transfer may take place by way of registration of new positions with the Clearing House in the name of the relevant Non-Defaulting FXCCM, or novation of rights and obligations to the relevant Non-Defaulting FXCCM. All such registrations shall be made in a way that recognises the Collateral paid or received in respect of variation margin and any amounts paid or received in respect of settlement in relation to the ForexClear Contracts of the Defaulting FXCCM representing such new positions.
 - 4.2 In order to effect the transfer of positions, the Clearing House shall prescribe such procedures and timetable as it considers reasonably appropriate in the circumstances. FXCCMs will be required to exercise best endeavours to comply with such requirements as may be established by the Clearing House, after consultation with the ForexClear DMG, to effect the transfer of positions, including but not limited to the payment of any sums due as a result of the winning bid and the provision of Collateral in an amount required by the Clearing House in respect of initial margin and variation margin obligations in respect of positions which are to be registered in their names. The Clearing House agrees that in such procedures it shall make provision for set-off by the Clearing House of amounts owed by the Clearing House to the individual Non-Defaulting FXCCMs as a result of the operation of the ForexClear DMP against sums owed by those individual Non-Defaulting FXCCMs to the Clearing House in respect thereof.
 - 4.3 Where, as a result of an Auction, the Clearing House is required to make a payment to a Non-Defaulting FXCCM in respect of a winning bid, the Clearing House shall not be

SCHEDULE 5
FOREXCLEAR DEFAULT FUND SUPPLEMENT

- F1. In accordance with and subject to Rule F2, the amount of each ForexClear Clearing Member's ForexClear Contributions shall be determined by the Clearing House as soon as practicable after each ForexClear Determination Date as appropriate on the basis of information available as at close of business on such ForexClear Determination Date and notified to such FXCCM as soon as practicable after such determination in accordance with the Procedures.
- F2. Each FXCCM's ForexClear Contribution (other than any ForexClear Unfunded Contribution or any Supplementary Contribution) shall be determined by the Clearing House in accordance with the following provisions:
- (a) determinations will be made by the Clearing House on the date that an FXCCM joins the ForexClear Service, and at the close of business on the first business day of each month, and otherwise in accordance with paragraph (f) below (each, a "**ForexClear Determination Date**"), provided, ~~however,~~ that following a Default, any such determinations and any such ForexClear Determination Date which might otherwise have occurred under this Rule F2 shall be suspended for the duration of the period (the "**ForexClear Default Period**") commencing on the date of such Default and terminating on the last to occur of the following dates:
- (i) the date which is the close of business on the day falling 30 calendar days after the ForexClear Default Management Process Completion Date in relation to such Default (or, if such day is not a business day, the next succeeding business day); and
- (ii) where, prior to the end of the period referred to in (i) above (or such period as has already been extended pursuant to this paragraph (ii)), one or more subsequent Defaults (each, a "**Relevant Default**") occur, the date which is the close of business on the day falling 30 calendar days after the ForexClear Default Management Process Completion Date in relation to a Relevant Default which falls latest in time (or, if such day is not a business day, the next succeeding business day);
- (b) On each business day, the Clearing House will determine one or more "Combined Loss Values", and a "Largest Combined Loss Value", in respect of each of the 30 preceding business days. ~~The Combined Loss Value in respect of a particular day will be the sum of the largest and the second largest stress testing loss incurred on that day in relation to ForexClear Business (for a given scenario);, where:~~
- (i) "Combined Loss Value" means, in respect of a business day and a scenario, the sum of the largest and second largest stress-testing loss determined by the Clearing House in respect of such day, such scenario and ForexClear Business; and

(ii) "Largest Combined Loss Value" means, in respect of a business day, the largest of the Combined Loss Values determined by the Clearing House in respect of such day.

(c) the "ForexClear Fund Amount" shall equal the sum of (i) the "ForexClear ~~Non-Deliverable Sub-Fund Amount~~", and (ii) the "ForexClear ~~Deliverable Sub-Fund Amount~~" and (iii) the "~~ForexClear Tolerance Amount~~". The ~~ForexClear Non-Deliverable Sub-Fund Amount and ForexClear Deliverable Sub-Fund Amount~~ shall be calculated in United States dollars ("USD") and, for a given ForexClear Determination Date, shall be ~~(i) in relation to the ForexClear Non-Deliverable Sub-Fund Amount, the largest of the 30 Largest Combined Loss Values in respect of ForexClear Non-Deliverable Contracts, and (ii) in relation to the ForexClear Deliverable Sub-Fund Amount, the largest of the 30 Combined Loss Values in respect of ForexClear Contracts other than ForexClear Non-Deliverable Contracts, each as determined by the Clearing House under paragraph (b) above for the preceding 30 business days, plus 10 per cent.~~ Each of the ForexClear Non-Deliverable Sub-Fund Amount and ForexClear Deliverable The ForexClear Sub-Fund Amount shall not be less than USD 70 million (the "ForexClear Fund Floor"). The "~~ForexClear Tolerance Amount~~" for a given ForexClear Determination Date shall equal the aggregate amount of ForexClear Tolerance provided by the Clearing House, during a time period determined by it, to all participating FXCCMs to facilitate the registration of ForexClear Contracts, provided that the ForexClear Tolerance Amount shall not exceed USD 500 million;

~~(d) the "ForexClear Margin Weight" means the "ForexClear Non-Deliverable Margin Weight" or the "ForexClear Deliverable Margin Weight", as applicable.~~

(d)

~~(i) an FXCCM's "ForexClear Non-Deliverable Margin Weight" shall be calculated by dividing (A) the Uncovered Stress Loss Metric associated with such FXCCM's ForexClear Non-Deliverable Contracts by (B) the total Uncovered Stress Loss Metric applied to all Non-Defaulting FXCCMs with respect to their ForexClear Non-Deliverable Contracts, in each case where the ForexClear Non-Deliverable Contracts are (I) entered into on the FXCCM's own behalf or with respect to a ForexClear Clearing Client or an FCM Client and (II) open and outstanding during the reference period set forth in paragraph (b) above;~~

~~(ii)(i) an FXCCM's "ForexClear Deliverable Margin Weight" shall be calculated by dividing (A) the Uncovered Stress Loss Metric associated with all of only for such FXCCM's ForexClear Contracts other than ForexClear Non-Deliverable Contracts by (B) the total Uncovered Stress Loss Metric applied to all Non-Defaulting FXCCMs with respect to their ForexClear Contracts that are not ForexClear Non-Deliverable Contracts, in each case where the ForexClear Contracts are (I) entered into on the FXCCM's own behalf or with respect to a ForexClear Clearing Client or an FCM Client and (II) open and outstanding open and~~

outstanding at any point during the reference period set forth in paragraph (b) above;

~~(iii)~~(ii) an FXCCM's "**Uncovered Stress Loss Metric**," as determined ~~in accordance with~~for the purposes of ~~sub-paragraphs~~paragraph (i) ~~and/or~~ ~~(ii)~~ above, is a risk metric used by the Clearing House in the calculation of the FXCCM's ForexClear Contribution and shall be determined by the Clearing House (and notified to each FXCCM) from time to time by, inter alia, deducting the amount of eligible margin held by the Clearing House with respect to the relevant ForexClear Contracts from the stress loss associated with such ForexClear Contracts; provided that the Clearing House may, in determining the Uncovered Stress Loss Metric of an FXCCM, take into account, inter alia, the number of alternative FXCCMs that clear ForexClear Contracts with respect to that FXCCM's ForexClear Clearing Clients or FCM Clients; for the avoidance of doubt, the largest and second largest stress-testing losses for purposes of determining a Combined Loss Value in accordance with paragraph (b) above are not the applicable Uncovered Stress Loss Metrics of the relevant FXCCMs for the purposes of this sub-paragraph (~~iii~~);

~~(iv)~~(iii) the provisions of this sub-paragraph (d) shall not apply to New Members and, for the avoidance of doubt, New Members shall not constitute Non-Defaulting FXCCMs for the purposes of limb (B) of ~~sub-paragraphs~~paragraph (i) ~~and~~ ~~(ii)~~;

(e) each FXCCM's ForexClear Contribution comprises ~~the~~its "**ForexClear Non-Deliverable Contribution**," ~~the~~ "**ForexClear Deliverable Sub-Fund Contribution**" and its ForexClear Tolerance, as applicable. The FXCCM's ForexClear ~~Non-Deliverable Sub-Fund~~ Contribution shall be calculated by multiplying the ForexClear ~~Non-Deliverable~~ Sub-Fund Amount by the FXCCM's ForexClear ~~Non-Deliverable~~ Margin Weight, and shall be no less than the Minimum ForexClear Contribution. ~~The FXCCM's ForexClear Deliverable Contribution shall be calculated by multiplying the ForexClear Deliverable Sub-Fund Amount by the FXCCM's ForexClear Deliverable Margin Weight, and shall be no less than the Minimum ForexClear Contribution;~~ and

(f) subject to a suspension pursuant to paragraph (a) above, the Clearing House may recalculate the ForexClear Fund Amount on any business day if the largest of the Largest Combined Loss Value ~~Value~~ determined by the Clearing House under paragraph (b) above for the 30 business days preceding such business day differs by more than 25 per cent. from the figure on which the previous ForexClear Contribution determination was based.

F3. For the purposes of the calculations under Rule F2:

(a) references to "ForexClear Clearing Members" or "FXCCMs" do not include references to Defaulting FXCCMs (apart from any Defaulting FXCCM in respect of which the Clearing House permits the application of Rule F2) or persons which were formerly FXCCMs but are not FXCCMs at the ForexClear Determination Date at which the relevant determination is made;

(b) contributions shall be rounded upwards, if not already such a multiple, to the next integral multiple of one thousand US dollars;

~~(e) no account shall be taken, in calculating initial margin or ForexClear Margin Weight under Rule F2 of any offsets applied in calculating initial margin obligations imposed on an FXCCM in respect of ForexClear Contracts, which may otherwise be permissible under the Procedures or other arrangements applicable;~~

~~(d)~~(c) provided that the FXCCM is not a Defaulter, the amount of its ForexClear Contribution shall be calculated in accordance with and subject to Rule F2. The provisions of Rule F1, Rule F2, this Rule F3 and Rule F5 do not apply to a Defaulting FXCCM, unless the Clearing House so permits in any particular case; and

~~(e)~~(d) if (i) an FXCCM (other than an FCM Clearing Member) notifies the Clearing House on the ForexClear Default Management Process Completion Date or the business day occurring immediately after such date that it wishes to resign from the ForexClear Service, (ii) the ForexClear AET Requirement in respect of such proposed resignation has been satisfied by the ForexClear Determination Date occurring immediately after such ForexClear Default Management Process Completion Date, (iii) the FXCCM is not a Defaulter, and (iv) no Default has occurred from and including the ForexClear Determination Date referred to in Rule F3(ed)(ii) to and including the fourth business day occurring after such ForexClear Determination Date (“**ForexClear Contribution Payment Date**”), then the FXCCM shall cease to be an FXCCM on and from such ForexClear Contribution Payment Date and the Clearing House shall repay the ForexClear Contribution that it holds for such FXCCM (to the extent it has not been applied under these Default Rules) in accordance with the Procedures and the FXCCM shall not be obliged to make any payment to the Clearing House under Rule F5(c). If an FXCCM notifies the Clearing House in accordance with Rule F3(ed)(i), but the requirements under Rules F3(ed)(ii), (iii) and/or (iv) are not satisfied, then such FXCCM will cease to be a Resigning Member in respect of the ForexClear Service.

F4. Without prejudice to any other requirements which the Clearing House may impose, the amount of the ForexClear Contribution of a New Member shall be the sum of (a) the Minimum ForexClear Contribution, (b) any supplementary sum determined by the Clearing House in its discretion and notified to the New Member and (c) as applicable, its ForexClear Tolerance. The Clearing House shall determine the amount of such supplementary sum by reference to the actual or expected level of clearing activity of the New Member.

F5. Upon determination of the amount of a ForexClear Contribution in accordance with Rule F2:

(a) if the amount of the ForexClear Contribution of an FXCCM immediately before close of business on the relevant ForexClear Determination Date exceeds the amount of the FXCCM's ForexClear Contribution determined under Rule F2 as at close of business on that day, the excess shall be paid by the Clearing House to such FXCCM in USD in accordance with the Procedures;

Appendix II: General Regulations



**GENERAL REGULATIONS OF
LCH LIMITED**

"ForexClear Contribution"	means an FXCCM's Contribution provided for under the ForexClear Default Fund Supplement and shall include (i) any relevant ForexClear Unfunded Contributions in respect of the FXCCM, <u>and</u> (ii) any relevant Supplementary Contribution in respect of the FXCCM, and (iii) if the Clearing Member is a ForexClear Option Clearing Member, the ForexClear Deliverable Default Fund Contribution of that ForexClear Option Clearing Member. For the avoidance of doubt, the ForexClear Contribution shall not include any of the ForexClear Liquidity Fund Contributions made by a ForexClear Option Clearing Member
"ForexClear CTM Contract"	means a ForexClear Contract that is not a ForexClear STM Contract
"ForexClear Currency"	means: <ul style="list-style-type: none"> (b) USD; (c) JPY; (d) EUR; (e) GBP; (f) CHF; or (g) AUD
"ForexClear Dealer (FXD)"	means a person admitted by the Clearing House to the Register of ForexClear Dealers and who has not been removed from the Register of ForexClear Dealers
"ForexClear Dealer Clearing Agreement (FDC Agreement)"	means a written agreement, in the form and on the terms prescribed by the Clearing House between an FXD, an FXCCM and the Clearing House
"ForexClear Default Fund Supplement"	means the Supplement relating to ForexClear Business
"ForexClear Default Management Process"	has the meaning assigned to it in the ForexClear DMP Annex in the Default Rules
"ForexClear Default Management Process Completion Date"	has the meaning assigned to it in the ForexClear DMP Annex in the Default Rules
"ForexClear Default Period"	has the meaning ascribed to it in Rule F2 of the ForexClear Default Fund Supplement

"ForexClear Deliverable Contract"

means a ForexClear Deliverable Forward Contract, ForexClear Option Contract, ForexClear Spot Contract or ForexClear Swap Contract

"ForexClear Deliverable Contract Terms"

means the ForexClear Deliverable Forward Contract Terms, ForexClear Option Contract Terms, ForexClear Spot Contract Terms or ForexClear Swap Contract Terms

~~**"ForexClear Deliverable Default Fund Contribution"**~~

~~means, for any FXCCM which is a ForexClear Option Clearing Member, the amount of that FXCCM's Contribution attributable to the ForexClear Option Service determined in accordance with the ForexClear Default Fund Supplement and the Procedures~~

"ForexClear Deliverable Forward Contract"

means a Contract entered into by the Clearing House with a ForexClear Clearing Member on the ForexClear Deliverable Forward Contract Terms which includes, in the case of the Default Rules (including the ForexClear DMP Annex but excluding, for the avoidance of doubt, the Client Clearing Annex), the FCM Default Fund Agreement and any other document, rule or procedure as specified by the Clearing House from time to time

"ForexClear Deliverable Forward Contract Terms"

means the terms applicable to each ForexClear Deliverable Forward Contract as set out from time to time in the Product Specific Contract Terms and Eligibility Criteria Manual applicable to ForexClear Deliverable Forward Contracts

"ForexClear Deliverable Forward STM Contract"

means a ForexClear Deliverable Forward Contract that is either (i) registered at the Clearing House as a ForexClear Deliverable Forward STM Contract pursuant to Regulation 91, (ii) converted into a ForexClear Deliverable Forward STM Contract by the Clearing House pursuant to Regulation 106A, or (iii) a ForexClear Deliverable Forward STM Contract through novation pursuant to Regulation 12(b), in each case the terms of which therefore include the ForexClear Deliverable Forward STM Terms

"ForexClear Deliverable Forward STM Terms"

means the part of the ForexClear Deliverable Forward Contract Terms designated as the ForexClear Deliverable Forward STM Terms by the Clearing House from time to time

"ForexClear Deliverable Forward Transaction"

means a contract, meeting the applicable ForexClear Eligibility Criteria for registration as a ForexClear Deliverable Forward Contract, entered into between two ForexClear Participants, of which particulars are presented to the Clearing House for registration in the name of ForexClear Clearing Members in accordance with the Regulations

"ForexClear Option Contract"	means a Contract entered into by the Clearing House with a ForexClear Clearing Member on the ForexClear Option Contract Terms which includes, in the case of the Default Rules (including the ForexClear DMP Annex but excluding, for the avoidance of doubt, the Client Clearing Annex), the FCM Default Fund Agreement and any other document, rule or procedure as specified by the Clearing House from time to time
"ForexClear Option Contract Terms"	means the terms applicable to each ForexClear Option Contract as set out from time to time in the Product Specific Contract Terms and Eligibility Criteria Manual applicable to ForexClear Option Contracts
"ForexClear Option Party A"	means, in respect of ForexClear Deliverable Forward Contract, ForexClear Spot Contract or ForexClear Swap Contract (as applicable), the ForexClear Option Clearing Member identified as "Party A" in the applicable ForexClear Deliverable Forward Contract Terms, ForexClear Spot Contract Terms or ForexClear Swap Contract Terms (as applicable)
"ForexClear Option Party B"	means, in respect of ForexClear Deliverable Forward Contract, ForexClear Spot Contract or ForexClear Swap Contract (as applicable), the ForexClear Option Clearing Member identified as "Party B" in the applicable ForexClear Deliverable Forward Contract Terms, ForexClear Spot Contract Terms or ForexClear Swap Contract Terms (as applicable)
"ForexClear Option Service Default Fund Contribution"	means, for any FXCCM which is a ForexClear Option Clearing Member, the amount of that FXCCM's Contribution attributable to the ForexClear Option Service determined in accordance with the ForexClear Default Fund Supplement and the Procedures
"ForexClear Option Seller"	means, in relation to a ForexClear Option Contract, the party specified as the 'Seller' in the Economic Terms of that ForexClear Option Contract
"ForexClear Option Service"	means the service provided by the Clearing House under the ForexClear Regulations, whereby the Clearing House makes available services in respect of ForexClear Option Contracts, ForexClear Deliverable Forward Contracts, ForexClear Spot Contracts and ForexClear Swap Contracts
"ForexClear Option Service Membership Requirements"	has the meaning assigned to it in the Procedures

REGULATION 99 FOREXCLEAR OPTION SERVICE – MEMBERSHIP REQUIREMENTS

- (a) A ForexClear Clearing Member that wishes to be designated as a ForexClear Option Clearing Member shall apply to the Clearing House in the manner prescribed by the Clearing House from time to time. That Clearing Member must, at the point of application and at all times thereafter, satisfy, in a manner satisfactory to the Clearing House, the ForexClear Option Service Membership Requirements set out in the Procedures.
- (b) If, in its absolute discretion, the Clearing House determines that a ForexClear Option Clearing Member ceases to meet one or more of the ForexClear Option Service Membership Requirements in effect at the applicable time, the Clearing House may rescind that Clearing Member's eligibility to have ForexClear Option Contracts, ForexClear Deliverable Forward Contracts, ForexClear Spot Contracts and/or ForexClear Swap Contracts registered in such Clearing Member's name, but without prejudice to (i) that Clearing Member's eligibility to have registered in its name, subject to the Regulations, any other Contracts in respect of which it continues to meet the relevant eligibility criteria, and (ii) the Clearing House's rights to take the actions specified in Regulation 100, Regulation 101 or any other Regulation with respect to that ForexClear Option Clearing Member, to the extent such ForexClear Option Clearing Member continues to have any ForexClear Contracts (other than ForexClear Non-Deliverable Contracts) registered in its name.
- (c) For the avoidance of doubt, a ForexClear Clearing Member that the Clearing House has designated as a ForexClear Option Clearing Member shall, subject to Regulation 16, Regulation 99(b), the ForexClear Procedures and the Default Rules, be eligible to have ForexClear Option Contracts, ForexClear Deliverable Forward Contracts, ForexClear Spot Contracts and/or ForexClear Swap Contracts registered in its name (and not only ForexClear Option Contracts).

Appendix III: Procedure Section 1

[Clearing Member, Non-member Market Participant and Dealer Status]



LCH LIMITED

PROCEDURES SECTION 1

**CLEARING MEMBER, NON-MEMBER MARKET
PARTICIPANT AND DEALER STATUS**

1.3.2 *Supplementary Criteria Applicable to RepoClear Applicants*

In addition to the minimum Net Capital Requirements as set out in Section 1.7.2, an applicant must satisfy the following criteria:

- (a) be authorised and supervised as either a credit institution or an investment firm by the competent authorities of a member state of the European Union; or
- (b) be authorised and supervised as the equivalent of a credit institution or an investment firm by the competent authorities of a country outside the European Union and be subject to prudential rules considered to be as stringent as those applicable to credit institutions and investment firms.

1.3.3 *Supplementary Criteria Applicable to SwapClear Applicants*

In addition to the minimum Net Capital Requirements as set out in Section 1.7.2, an applicant must satisfy the following criteria:

- (a) successfully participate, or demonstrate that it has: (i) an affiliated SwapClear Clearing Member ("**SCM**") that can successfully participate; or (ii) an LCH Approved Outsourcing Party that can successfully participate in a SwapClear "fire drill" run by the Clearing House which shall involve submitting a bid for a notional portfolio of trades within a specific currency in a specified timeframe. Submission of a bid outside the timeframe specified by the Clearing House or submitting a bid that is unreasonable will constitute a failure of the "fire drill" and the applicant's SCM application will not be approved;
- (b) be able to participate or demonstrate that it has: (A) an affiliated SCM that can participate; or (B) an LCH Approved Outsourcing Party that can successfully participate, in the default management process as operated by the Clearing House;
- (c) have, within its corporate group, at least one credit institution or investment firm licensed by the competent authorities of a member state of the European Union, or the equivalent of a credit institution or an investment firm licensed by the competent authorities of a country outside the European Union and which is subject to prudential rules considered by the Clearing House to be at least as stringent as those applicable to credit institutions and investment firms within the European Union; and
- (d) in the event of a default, be able to receive from the Clearing House and to process SwapClear Contracts, and any associated hedge trades, in FPML format or in separated value electronic format.

Membership criteria for FCM Clearing Member status are contained in the Clearing House's FCM Regulations.

1.3.4 *Supplementary Criteria Applicable to ForexClear Option Service Applicants*

In addition to the criteria set out in these Procedures as being applicable to ForexClear Clearing Members, a Clearing Member that wishes to use the ForexClear Option Service must satisfy the requirements in this section, which shall be without prejudice to any other membership or participation requirements applicable to a Clearing Member under the Regulations, the Procedures and/or any Clearing Membership Agreement.

A ForexClear Clearing Member that wishes to be designated as a ForexClear Option Clearing Member shall apply to the Clearing House in the manner prescribed by the Clearing House from time to time. That Clearing Member must, at the point of application and at all times thereafter, satisfy, in a manner satisfactory to the Clearing House, the following conditions (together, the "**ForexClear Option Service Membership Requirements**"):

- (i) the Clearing Member must be a ForexClear Clearing Member;
- (ii) the Clearing Member must at all times have primary nostro accounts in place with a bank satisfactory to the Clearing House to record, effect and receive payments denominated in each ForexClear Currency;
- (iii) the Clearing Member must at all times be able to demonstrate to the Clearing House that it or its designated settlement agent is capable of effecting timely payments within the applicable real-time gross settlement system for each ForexClear Currency;
- (iv) the Clearing Member must at all times be able to demonstrate to the Clearing House that it has back-up account arrangements in place with a bank satisfactory to the Clearing House to record, effect and receive payments denominated in each ForexClear Currency in the event that its primary nostro is unavailable;
- (v) prior to the date on which the Clearing Member is designated as a ForexClear Option Clearing Member, the Clearing Member shall pay to the Clearing House:
 - (A) an amount of cash denominated in Australian Dollars equal to the AUD ForexClear Liquidity Fund Contribution applicable to that Clearing Member;
 - (B) an amount of cash denominated in Euros equal to the EUR ForexClear Liquidity Fund Contribution applicable to that Clearing Member;
 - (C) an amount of cash denominated in Sterling equal to the GBP ForexClear Liquidity Fund Contribution applicable to that Clearing Member; and
 - (D) an amount of cash denominated in Swiss Francs equal to the CHF ForexClear Liquidity Fund Contribution applicable to that Clearing Member.

- (vi) prior to the date on which the Clearing Member is designated as a ForexClear Option Clearing Member, the Clearing Member shall pay to the Clearing House the ForexClear ~~Option Service Default Fund Contribution~~ (to the extent it has not already paid this to the Clearing House);
- (vii) the Clearing Member must at all times either:
 - (A) have access to, and have all necessary documentation (if any) in place with, a third party provider approved by the Clearing House as being responsible for communicating, matching and facilitating the exercise and/or expiry of each ForexClear Option Contract to which it is a party; and
 - (B) have direct access to the ClearLink API, or similar direct communication methods as offered under the ForexClear Service, for the purpose of communicating directly with the Clearing House regarding exercise and/or expiry of each ForexClear Option Contract to which it is a party,
- (viii) the Clearing Member must enter into, deliver, and maintain, any agreement, deed, form or other document that is required by the Clearing House from time to time in connection with the ForexClear Option Service;
- (ix) the Clearing Member must not be a Defaulting Clearing Member;
- (x) the Clearing Member must participate in testing and trialling as requested by the Clearing House from time to time in connection with the ForexClear Option Service;
- (xi) the Clearing Member must be an “institution” or a “participant” within the meaning of the Financial Markets and Insolvency (Settlement Finality) Regulations 1999 (S.I. 1999 No. 2979), as amended; and
- (xii) the Clearing Member must satisfy all other requirements and eligibility criteria that may be applicable to it from time to time under the Regulations, the Procedures and/or the Clearing Membership Agreement.

A Clearing Member’s status as a ForexClear Option Clearing Member is, at all times, subject to the condition precedent that it satisfies, in a manner satisfactory to the Clearing House, the ForexClear Option Service Membership Requirements in effect at the applicable time.

The Clearing House may, from time to time, publish a list of Clearing Members who are eligible to use the ForexClear Option Service.

For the avoidance of doubt, a ForexClear Clearing Member that the Clearing House has designated as a ForexClear Option Clearing Member shall, subject

to Regulation 16, Regulation 99(b), the ForexClear Procedures and the Default Rules, be eligible to have ForexClear Option Contracts, ForexClear Deliverable Forward Contracts, ForexClear Spot Contracts and/or ForexClear Swap Contracts registered in its name (and not only ForexClear Option Contracts).

1.3.5 *Supplementary Criteria Applicable to ForexClear Applicants*

In addition to the minimum Net Capital Requirements as set out in Section 1.7.2, an applicant must satisfy the following criteria:

- (a) successfully participate, or demonstrate that it has: (i) an affiliated ForexClear Clearing Member ("FXCCM") that can successfully participate; or (ii) an LCH Approved Outsourcing Party that can successfully participate, in a ForexClear "fire drill" run by the Clearing House which shall involve submitting a bid for a notional portfolio of trades within specific currency pairs in a specified timeframe. Submission of a bid outside the timeframe specified by the Clearing House or submitting a bid that is unreasonable will constitute a failure of the "fire drill" and the applicant's FXCCM application will not be approved;
- (b) be able to participate or demonstrate that it has: (A) an affiliated FXCCM that can successfully participate; or (B) an LCH Approved Outsourcing Party that can successfully participate, in the ForexClear default management process as operated by the Clearing House;
- (c) have, within its corporate group, at least one credit institution or investment firm licensed by the competent authorities of a member state of the European Union, or the equivalent of a credit institution or an investment firm licensed by the competent authorities of a country outside the European Union and which is subject to prudential rules considered by the Clearing House to be at least as stringent as those applicable to credit institutions and investment firms within the European Union; and
- (d) in the event of a default, be able to receive from the Clearing House and process ForexClear Contracts, and any associated hedge trades, in FPML format or, separated value electronic format.

1.3.6 *Supplementary Criteria Applicable to Special Clearing Member Applicant*

The Clearing House may agree with an applicant for Special Clearing Member status, in addition to or in place of requirements set out in these Procedures, such further terms as it deems appropriate in the circumstances of the applicant and its business and these shall be reflected in the Clearing Membership Agreement.

1.3.7 *Supplementary Criteria Applicable to Clearing Members subject to certain U.S. laws*

Appendix IV: Procedure Section 2I
[ForexClear Clearing Service]



LCH LIMITED

PROCEDURES SECTION 2I

FOREXCLEAR CLEARING SERVICE

(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 their initial margin obligations. Each FXCCM's initial margin obligation will ~~comprise the aggregate of the initial margin obligations separately~~ be calculated on an aggregate basis across its ForexClear Contracts within in relation to (i) the ForexClear Non-Deliverable Service and (ii) the ForexClear Deliverable 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 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, including risk relating to a country's external debt or level of foreign exchange reserves, 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.
- (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. The SMM is calculated in respect of ForexClear Deliverable Contracts only.
- (f) *Default Fund Additional Margin:* The Clearing House may from time to time require an FXCCM 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 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.
- (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