

LCH.CLEARNET LIMITED**(The Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001, Part IV)****DEFAULT FUND RULES**

14. These Default Fund Rules form part of the Default Rules and the Clearing House Rulebook.

The Default Fund Rules comprise:

- these general Default Fund Rules (Rules 14 to 37 inclusive); and
- Supplements specific to the following Services: Commodities, Equities, ForexClear, Listed Interest Rate Derivatives, RepoClear and SwapClear.

Each Supplement establishes a separate default fund specific to the Service to which the Supplement relates. The Supplements establish the size of each default fund, the basis for calculating Contributions to each default fund, and include supplementary provisions addressing cases where the relevant default fund has been utilised. The general default fund rules establish the mechanisms, which apply severally to each default fund, for utilisation of the default funds, and for other matters common to all default funds.

The allocation by the Risk Committee of the Clearing House of a Contract to a particular Service to which a Supplement applies shall be done in accordance with the definitions set out in the Supplements, and each decision of the Risk Committee in this respect is conclusive.

Interpretation

15. Words and expressions assigned meanings in the Clearing House Rulebook shall have the same meanings in these Default Fund Rules.

For the purposes of Rules 15 to 37 (inclusive), the following terms have the following meanings:

"Aggregate Excess Loss" means, in relation to a Default, the aggregate amount of all Excess Losses attributable to all types of Relevant Business in which the defaulter was engaged;

"Business" means any transactions, liabilities or obligations arising out of any contract and includes, in relation to the relevant Services, Commodities Business, Equities Business, ForexClear Business, Listed Interest Rate Business, RepoClear Business and SwapClear Business;

"Capped Amount" has the meaning assigned to it in Rule 16(c);

"Contribution" means the contribution of a Clearing Member to a default fund of the Clearing House and includes, in relation to the relevant Services, a Commodities Contribution, an Equities Contribution, a ForexClear Contribution, a Listed Interest Rate Contribution, a RepoClear Contribution and a SwapClear Contribution;

"Default" means the issue, in respect of a Clearing Member, of a Default Notice as provided for by Rule 3 or the occurrence, in respect of a Clearing Member, of an Automatic Early Termination Event;

"Default Loss" has the meaning assigned to it in Rule 23(b);

"Determination Date" means the date for calculation of a Contribution, as provided for in a Supplement, and includes a Commodities Determination Date, an Equities Determination Date, a ForexClear Determination Date, a Listed Interest Rate Determination Date, a RepoClear Determination Date and a SwapClear Determination Date;

"EquityClear Fund Amount" definition no longer in force;

"Excess Loss" means, in relation to any Relevant Business and any Default, the net sum or aggregate of net sums certified to be payable by the defaulter by a Rule 26 Certificate in respect of the Relevant Business, less (a) the proportion of the Capped Amount applicable to the Relevant Business under Rule 16(c) and (b) any sums then immediately payable in respect of Default Losses for that Relevant Business by any insurer or provider of analogous services under any policy of insurance or analogous instrument written in favour of the Clearing House, and includes, in relation to the relevant Services, a Commodities Excess Loss, an Equities Excess Loss, a ForexClear Excess Loss, a Listed Interest Rate Excess Loss, a RepoClear Excess Loss and a SwapClear Excess Loss;

"Exchange Fund Amount" definition no longer in force;

"Insufficient Resources Determination" has the meaning assigned to it in Rule C10 of the Commodities Default Fund Supplement, Rule E10 of the Equities Default Fund Supplement, Rule F11 of the ForexClear Default Fund Supplement, Rule L10 of the Listed Interest Rate Default Fund Supplement, Rule R11 of the RepoClear Default Fund Supplement or Rule S11 of the SwapClear Default Fund Supplement, as applicable;

"Net Recovery" means any sum received by the Clearing House from or for the account of a defaulter after the issue by the Clearing House of a Rule 26 Certificate in respect of losses arising upon the defaulter's Default less any amount payable to any insurer or provider of analogous services in respect of any amount due from but not previously paid by the defaulter;

"New Member" means, on the day as at which any Contribution is to be calculated, any Clearing Member which either has become a Clearing Member, or has commenced clearing in respect of the relevant Service, since the immediately preceding day prescribed for calculating similar Contributions;

"Relevant Business" means Commodities Business, Equities Business, ForexClear Business, Listed Interest Rate Business, RepoClear Business or SwapClear Business;

"Relevant Service" has the meaning given to such term in Rule 33;

"Resigning Member" has the meaning given to such term in Rule 33;

"Retiring Member" means at any time any Clearing Member or, as the context may require, any former Clearing Member who has given notice to terminate its Clearing

Member status to the Clearing House or in respect of whom the Clearing House has terminated or given notice to terminate its Clearing Member status;

"Rule 26 Certificate" has the meaning assigned to it in Rule 26;

"Service Closure Payment" has the meaning given to such term at Rule R11(c) of the RepoClear Default Fund Supplement;

"Supplement" means a supplement specific to a particular Service and includes the Commodities Default Fund Supplement, the Equities Default Fund Supplement, the ForexClear Default Fund Supplement, the Listed Interest Rate Default Fund Supplement, the RepoClear Default Fund Supplement and the SwapClear Default Fund Supplement; and

"Unfunded Contribution" means the unfunded contribution of a Clearing Member referable to a specific Service provided by the Clearing House.

15A The following terms which are principally used in the Supplements have the following meanings:

"Commodities Business" means any transaction, obligation or liability arising out of any Commodities Contract;

"Commodities Clearing Member" means, for the purposes of these Default Fund Rules and the Commodities Default Fund Supplement, a Clearing Member which engages in Commodities Business;

"Commodities Contracts" includes, for the purposes of these Default Fund Rules, all commodities contracts cleared by the Clearing House;

"Commodities Contribution" means the amount of a Commodities Clearing Member's Contribution determined in accordance with the Commodities Default Fund Supplement and shall include any relevant Unfunded Contributions deposited and made by the Commodities Clearing Member with the Clearing House;

"Commodities Default Fund Supplement" means the supplement to these Default Fund Rules relating to Commodities Business;

"Commodities Determination Date" has the meaning assigned to "Determination Date" in Rule C2(c);

"Commodities Excess Loss" means the net sum or aggregate of net sums certified to be payable by a defaulter by a Rule 26 Certificate in respect of Commodities Business, less (a) the proportion of the Capped Amount applicable to Commodities Business under Rule 16(c) and (b) any sums then immediately payable in respect of Commodities Business Default Losses owed by such defaulter by any insurer or provider of analogous services under any policy of insurance or analogous instrument written in favour of the Clearing House;

"Commodities Fund Amount" means the amount of the commodities default fund established from time to time pursuant to the Commodities Default Fund Supplement;

"Commodities Service" means the clearing service of the Clearing House relating to Commodities Business;

"Defaulting FXCCM" means an FXCCM who is a defaulter under Rule 4;

"Defaulting RCM" means an RCM who is a defaulter under Rule 4;

"Defaulting SCM" means an SCM who is a defaulter under Rule 4;

"EONIA" means, in relation to a RepoClear Contribution, the overnight rate as calculated by the European Central Bank and appearing on the Reuters Screen EONIA Page or, if such rate is not available, such EONIA-linked rate as may be determined in light of market conditions at such time by the Clearing House and notified by the Clearing House to Clearing Members;

"Equities Business" means any transaction, obligation or liability arising out of any Equities Contract;

"Equities Clearing Member" includes, for the purposes of these Default Fund Rules, a Clearing Member which engages in Equities Business and includes an EquityClear Clearing Member;

"Equities Contracts" includes, for the purposes of these Default Fund Rules, all cash equity contracts, CFDs and equity derivative contracts cleared by the Clearing House;

"Equities Contribution" means the amount of an Equities Clearing Member's Contribution determined in accordance with the Equities Default Fund Supplement and shall include any relevant Unfunded Contributions deposited and made by the Equities Clearing Member with the Clearing House;

"Equities Default Fund Supplement" means the supplement to these Default Fund Rules relating to Equities Business;

"Equities Determination Date" has the meaning assigned to "Determination Date" in Rule E2(c);

"Equities Excess Loss" means the net sum or aggregate of net sums certified to be payable by a defaulter by a Rule 26 Certificate in respect of Equities Business, less (a) the proportion of the Capped Amount applicable to Equities Business under Rule 16(c) and (b) any sums then immediately payable in respect of Equities Business Default Losses owed by such defaulter by any insurer or provider of analogous services under any policy of insurance or analogous instrument written in favour of the Clearing House;

"Equities Fund Amount" means the amount of the equities default fund established from time to time pursuant to the Equities Default Fund Supplement;

"Equities Service" means the clearing service of the Clearing House relating to Equities Business;

"Fed Funds Rate" means the Federal Funds Rate as published by the Federal Reserve Bank of New York or, if such rate is not available, such Fed Funds-linked rate as may be determined in light of market conditions at such time by the Clearing House and notified by the Clearing House to Clearing Members;

"ForexClear Amendment" has the meaning assigned to it in Rule F12 of the ForexClear Default Fund Supplement;

"ForexClear Business" means any transaction, obligation or liability arising out of any ForexClear Contract;

"ForexClear Clearing Member" or **"FXCCM"** means, for the purposes of these Default Fund Rules and the ForexClear Default Fund Supplement, a Clearing Member which engages in ForexClear Business;

"ForexClear Contribution" means the amount of an FXCCM's Contribution determined in accordance with the ForexClear Default Fund Supplement and shall include any ForexClear Unfunded Contributions deposited and made by the FXCCM with the Clearing House;

"ForexClear Default Fund Supplement" means the supplement to these Default Fund Rules relating to ForexClear Business;

"ForexClear Default Management Process" has the meaning assigned to it in the ForexClear DMP Annex;

"ForexClear Default Management Process Completion Date" has the meaning assigned to it in the ForexClear DMP Annex;

"ForexClear Default Period" has the meaning ascribed to it in Rule F2 of the ForexClear Default Fund Supplement;

"ForexClear Determination Date" has the meaning assigned to it in Rule F2 of the ForexClear Default Fund Supplement;

"ForexClear DMG" has the meaning assigned to it in the ForexClear DMP Annex;

"ForexClear Excess Loss" means the net sum or aggregate of net sums certified to be payable by a defaulter in respect of ForexClear Business by a Rule 26 Certificate less (a) the proportion of the Capped Amount applicable to ForexClear Business under Rule 16(c) and (b) any sums then immediately payable in respect of ForexClear Business Default Losses owed by such defaulter by any insurer or provider of analogous services under any policy of insurance or analogous instrument written in favour of the Clearing House;

"ForexClear Fund Amount" means the amount as determined in accordance with Rule F2(c) of the ForexClear Default Fund Supplement;

"ForexClear Loss Distribution Process" has the meaning assigned to it in Rule F9 of the ForexClear Default Fund Supplement;

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

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

"ForexClear Voluntary Payment" has the meaning assigned to it in Rule F10 of the ForexClear Default Fund Supplement;

"ForexClear Voluntary Payment Notice" has the meaning assigned to it in Rule F10 of the ForexClear Default Fund Supplement;

"Listed Interest Rate Business" means any transaction, obligation or liability arising out of a Listed Interest Rate Contract;

"Listed Interest Rate Clearing Member" means, for the purposes of these Default Fund Rules and the Listed Interest Rate Default Fund Supplement, a Clearing Member which engages in Listed Interest Rate Business;

"Listed Interest Rate Contract" includes, for the purposes of these Default Fund Rules, all listed interest rate derivative contracts cleared by the Clearing House;

"Listed Interest Rate Contribution" means the amount of a Listed Interest Rate Clearing Member's Contribution determined in accordance with the Listed Interest Rate Default Fund Supplement and shall include any relevant Unfunded Contributions deposited and made by the Listed Interest Rate Clearing Member with the Clearing House;

"Listed Interest Rate Default Fund Supplement" means the supplement to these Default Fund Rules relating to the Listed Interest Rate Business;

"Listed Interest Rate Determination Date" has the meaning assigned to "Determination Date" in Rule L2(c);

"Listed Interest Rate Excess Loss" means the net sum or aggregate of net sums certified to be payable by a defaulter by a Rule 26 Certificate in respect of Listed Interest Rate Business, less (a) the proportion of the Capped Amount applicable to Listed Interest Rate Business under Rule 16(c) and (b) any sums then immediately payable in respect of Listed Interest Rate Business Default Losses owed by such defaulter by any insurer or provider of analogous services under any policy of insurance or analogous instrument written in favour of the Clearing House;

"Listed Interest Rate Fund Amount" means the amount of the listed interest rate default fund established from time to time pursuant to the Listed Interest Rate Default Fund Supplement;

"Listed Interest Rate Service" means the clearing service of the Clearing House relating to Listed Interest Rate Business;

"Minimum ForexClear Contribution" means, subject to Rule F2 of the ForexClear Default Fund Supplement, USD 5,000,000;

"Minimum RepoClear Contribution" means, subject to Rule R2 of the RepoClear Default Fund Supplement, EUR 2,500,000;

"Minimum RepoClear Contribution Member" means an RCM in respect of which the Preliminary RepoClear Contribution calculated under Rule R2 of the RepoClear Default Fund Supplement is equal to or less than the Minimum RepoClear Contribution for the time being;

"Minimum SwapClear Contribution" means, subject to Rule S2 of the SwapClear Default Fund Supplement, £10,000,000;

"Minimum SwapClear Contribution Member" means an SCM in respect of which the Preliminary SwapClear Contribution calculated under Rule S2 of the SwapClear Default Fund Supplement is equal to or less than the Minimum SwapClear Contribution for the time being;

"Non-Defaulting FXCCM" means an FXCCM which is not a defaulter under Rule 4;

"Non-Defaulting RCM" means an RCM which is not a defaulter under Rule 4;

"Non-Defaulting SCM" means an SCM which is not a defaulter under Rule 4;

"Relevant Default" has the meaning ascribed to it in Rule S2 of the SwapClear Default Fund Supplement, Rule F2 of the ForexClear Default Fund Supplement or Rule R2 of the RepoClear Default Fund Supplement, as applicable;

"RepoClear Additional Payments Cap" means, in respect of an RCM on any date, an amount equal to the total amount Collateral transferred by that RCM in respect of its initial margin obligations and in respect of additional margin as at that date of the Default causing losses leading to an Insufficient Resources Determination (or, where such an Insufficient Resources Determination is made following concurrent Defaults, the date of the earliest Default);

"RepoClear Amendment" has the meaning assigned to it in Rule R12 of the RepoClear Default Fund Supplement;

"RepoClear Business" means any transaction, obligation or liability arising out of any Fixed Income Contract (as defined in Rule 6(d));

"RepoClear Clearing Member" or **"RCM"** means, for the purposes of these Default Fund Rules and the RepoClear Default Fund Supplement, a Clearing Member participating in any part of the RepoClear Service;

"RepoClear Contribution" means the amount of an RCM's Contribution determined in accordance with the RepoClear Default Fund Supplement and shall include any RepoClear Unfunded Contributions deposited and made by the RCM with the Clearing House;

"RepoClear Default Fund Supplement" means the supplement to these Default Fund Rules relating to the RepoClear Business;

"RepoClear Default Management Process" has the meaning assigned to it in the RepoClear DMP Annex;

"RepoClear Default Management Process Completion Date" has the meaning assigned to it in the RepoClear DMP Annex;

"RepoClear Determination Date" has the meaning assigned to it in Rule R2 of the RepoClear Default Fund Supplement;

"RepoClear Excess Loss" means the net sum or aggregate of net sums certified to be payable by a defaulter by a Rule 26 Certificate in respect of RepoClear Business less (a) the proportion of the Capped Amount applicable to RepoClear Business under Rule 16(c) and (b) any sums then immediately payable in respect of RepoClear Business Default Losses owed by such defaulter by any insurer or provider of analogous services under any policy of insurance or analogous instrument written in favour of the Clearing House;

"RepoClear Loss Distribution Process" has the meaning assigned to it in Rule R9 of the RepoClear Default Fund Supplement;

"RepoClear Segregated Fund Amount" means the amount as determined in accordance with Rule R2 and R3 of the RepoClear Default Fund Supplement;

"RepoClear Unfunded Contribution" has the meaning assigned to it in Rule R8 of the RepoClear Default Fund Supplement;

"RepoClear Unfunded Contribution Notice" has the meaning assigned to it in Rule R8 of the RepoClear Default Fund Supplement;

"SONIA" means the overnight rate as calculated by the Wholesale Market Broker's Association and appearing on the Reuters Screen SONIA Page (or, if such a rate is not available, such SONIA-linked rate as may be determined in light of market conditions at such time by the Clearing House and notified by the Clearing House to Clearing Members);

"SwapClear Amendment" has meaning assigned to it in Rule S12 of the SwapClear Default Fund Supplement;

"SwapClear Business" means any transaction, obligation or liability arising out of any SwapClear Contract;

"SwapClear Clearing Member" or **"SCM"** means, for the purposes of these Default Fund Rules and the SwapClear Default Fund Supplement, a Clearing Member participating in any part of the SwapClear Service;

"SwapClear Contribution" means the amount of an SCM's Contribution determined in accordance with the SwapClear Default Fund Supplement and shall include any SwapClear Unfunded Contributions deposited and made by the SCM with the Clearing House;

"SwapClear Default Fund Supplement" means the supplement to these Default Fund Rules relating to the SwapClear Business;

"SwapClear Default Management Process" has the meaning assigned to it in the SwapClear DMP Annex;

"SwapClear Default Management Process Completion Date" has the meaning assigned to it in the SwapClear DMP Annex;

"SwapClear Default Period" has the meaning ascribed to it in Rule S2 of the SwapClear Default Fund Supplement;

"SwapClear Determination Date" has the meaning assigned to it in Rule S2 of the SwapClear Default Fund Supplement;

"SwapClear DMG" has the meaning assigned to it in the SwapClear DMP Annex;

"SwapClear Excess Loss" means the net sum or aggregate of net sums certified to be payable by a defaulter by a Rule 26 Certificate in respect of SwapClear Business less (a) the proportion of the Capped Amount applicable to SwapClear Business under Rule 16(c) and (b) any sums then immediately payable in respect of SwapClear Business Default Losses owed by such defaulter by any insurer or provider of analogous services under any policy of insurance or analogous instrument written in favour of the Clearing House;

"SwapClear Loss Distribution Process" has the meaning assigned to it in Rule S9 of the SwapClear Default Fund Supplement;

"SwapClear Segregated Fund Amount" means the amount as determined in accordance with Rule S2(b) of the SwapClear Default Fund Supplement;

"SwapClear Unfunded Contribution" has the meaning assigned to it in Rule S8 of the SwapClear Default Fund Supplement;

"SwapClear Unfunded Contribution Notice" has the meaning assigned to it in Rule S8 of the SwapClear Default Fund Supplement;

"SwapClear Voluntary Payment" has the meaning assigned to it in Rule S10 of the SwapClear Default Fund Supplement; and

"SwapClear Voluntary Payment Notice" has the meaning assigned to it in Rule S10 of the SwapClear Default Fund Supplement.

15B For the purposes of a ballot under clause 9.4(c) of the Clearing Membership Agreement, **"Quarter Day"** shall be construed as referring to a Determination Date.

Reduction of Losses on Default

16. Subject to any contrary provision of the Rulebook, where a defaulter fails to pay any sum payable to the Clearing House, the Clearing House shall reduce or bear its loss in the manner provided by this Rule:-
- (a) first, to the extent the Clearing House determines appropriate, in applying any Collateral held by the Clearing House in respect of the defaulter and any other sum owed to the defaulter other than any Contribution (together, **"Margin Cover"**), provided that Margin Cover related to each type of Business of the defaulter is to be applied first to any loss attributable to that type of Business until such loss is absorbed;
 - (b) second, by (i) recourse to the defaulter's relevant Contribution in respect of the type of Business to which the loss relates, followed by (ii) recourse to any other Contribution made by the defaulter to the extent not utilised under (i) above. The Clearing House will exercise its rights of recourse under this Rule 16(b) by set-off against the Clearing House's obligation to repay the relevant Contributions to the defaulter;
 - (c) third, by payment from the Clearing House's own account of an amount up to a maximum of £20,000,000 (or such greater amount (if any) as may be determined from time to time by the Board of the Clearing House) (the **"Capped Amount"**). For the avoidance of doubt, amounts will only be paid under this stage (c) if and to the extent that to do so would not result in the Clearing House being unable to meet all its other liabilities (taking into account for these purposes the obligation of the Clearing House to return cash Collateral transferred to it by Clearing Members in respect of their initial margin obligations and to repay the Contributions of all Clearing Members).

Where there are amount due from the defaulter at this stage in respect of more than one type of business, the Capped Amount shall be applied to these amounts *pro rata*.

- (d) fourth, to the extent that any insurance or analogous arrangement is not available to the Clearing House, by recourse to the indemnities given under Rule 28 by Clearing Members other than the defaulter (which shall be satisfied by set-off against the Clearing House's obligation to repay the relevant Contributions of such Clearing Members). If the criteria specified in a relevant Supplement for calling any Unfunded Contributions have been satisfied, then References to the Contributions of Clearing Members other than the defaulter in this Rule 16(d) shall include such Unfunded Contributions;
- (e) fifth, by recourse to any insurance cover or analogous arrangement;
- (f) sixth, by recourse to the indemnities given under Rule 28 by Clearing Members other than the defaulter (which shall be satisfied by set-off against the Clearing House's obligation to repay the relevant Contributions of such Clearing Members). If the criteria specified in a relevant Supplement for calling any Unfunded Contributions have been satisfied, then References to the Contributions of Clearing Members other than the defaulter in this Rule 16(f) shall include such Unfunded Contributions;
- (g) seventh, by recourse to any other indemnities, guarantees, undertakings or monies provided by Clearing Members;
- (h) eighth, in respect of RepoClear Business only, by recourse to the Service Closure Payments set out in Rule R11; and
- (i) ninth, in respect of a RepoClear Excess Loss only, as a loss borne by the Clearing House for its own account. For the avoidance of doubt, amounts will only be paid under this stage (i) if and to the extent that to do so would not result in the Clearing House being unable to meet all its other liabilities (taking into account for these purposes the obligation of the Clearing House to return cash Collateral transferred to it by Clearing Members in respect of their initial margin obligations and to repay the Contributions of all Clearing Members).

This Rule has effect without prejudice to any rights of the Clearing House or any other person against the defaulter. Any Excess Loss remaining in respect of particular Business after application of the available resources under stages (a) to (g) under this Rule 16 shall be addressed as provided under the relevant Supplement, and without recourse to Service Closure Payments (except with regard to RepoClear only) or other loss-allocation provisions under any other Supplement or (except as provided in stage (i) with regard to RepoClear only) to the capital of the Clearing House.

Where a defaulter is engaged in more than one type of Relevant Business, the completion of the default management processes in respect of such Relevant Businesses may occur at different times. The Clearing House may be required to make a determination in respect of one Relevant Business (including certification of a Default Loss under Rule 23(b), certification of a net sum payable under Rule 26(a) or the value of an Excess Loss) in order to manage the default at a time when (a) the determination is contingent on an outcome of the default management process in respect of some other Relevant Business, and (b) that outcome has not yet been reached. In the interests of efficient resolution, the Clearing House may at such point make assumptions about that outcome, and proceed with the relevant process on that basis. Where any such assumptions have been made, the Clearing House shall, on the completion of the default management processes in respect of all Relevant

Businesses, make such credits to the default funds relating to the Relevant Businesses and such distributions to former Clearing Members as may be necessary to put the default funds and those firms which had contributed to such default funds at the time of the relevant default in the position that they would have been in if the correct outcomes had been used and the relevant assumptions had not been made.

17. – 22. Rules no longer in force

Terms on which Contribution is held

23. (a) Subject to Rules (b) and (c), the outstanding balance of a Clearing Member's Contribution (or, as appropriate, part thereof) shall be repayable to the Clearing Member on the earliest to occur of the following events:
- (i) if the Clearing Member is not a defaulter (or the Clearing Member is a defaulter and has validly exercised its rights under Regulation 39A(e)), the effective date of termination of the Clearing Member's status as a Clearing Member (including a Termination Date under Regulation 39A or under FCM Regulation 24A);
 - (ii) if the Clearing Member has become a defaulter, the date or event appointed by the Clearing House for repayment of sums due to the Clearing Member under Rule 9;
 - (iii) the amount of the Contribution being reduced by virtue of the recalculation of its amount in accordance with the provisions of a Supplement (in which case the Contribution shall be repayable only to the extent of such reduction);
 - (iv) the Clearing House making an Insufficient Resources Determination in accordance with the provisions of the Supplement to which the Contribution relates; and
 - (v) the expiry of a period of 50 years from the date on which the Contribution was paid to the Clearing House.
- (b) If a Clearing Member becomes a defaulter, the Clearing House shall as soon as practicable after any Margin Cover has been applied pursuant to Rule 16, certify one or more net sums then payable by the defaulter to the Clearing House in respect of each type of Business (each a "**Default Loss**"), disregarding for this purpose any of the defaulting Clearing Member's Contributions. If the Clearing House certifies any Default Loss, the defaulter's Contribution in respect of the relevant Business shall immediately become due and repayable, but only in an amount not exceeding that Default Loss. Insofar as the Default Loss exceeds the defaulter's Contribution in respect of the relevant Business, the defaulter's Contributions (if any) made in respect of other types of Business shall become due and repayable, in an amount in aggregate not exceeding the total Default Loss remaining after deducting the defaulter's Contribution in respect of the Business to which the Default Loss relates.
- (c) If an amount becomes payable by the Clearing Member under Rule 28, the Clearing Member's relevant Contribution shall immediately become due and repayable, but only to the extent of such amount.

24. Interest shall accrue on the amount of a Contribution at such rate and in such manner as provided in the relevant Supplement. Interest shall not be regarded as part of a Contribution.
25. A Clearing Member's entitlement to repayment of any of its Contributions or any part of them shall not be capable of assignment by the Clearing Member, nor shall Contributions be capable of being charged or subject to any other form of security whether purporting to rank in priority over, *pari passu* with or subsequent to the rights of the Clearing House. Any purported charge or assignment by a Clearing Member (whether by way of security or otherwise) of its Contributions shall be void. A Clearing Member shall not otherwise encumber (or seek to encumber) its Contributions.

Application of defaulter's Contribution, and Certification of Aggregate Excess Losses

26. Without prejudice to any other right of set-off or application of funds to which the Clearing House may be entitled, in the event of a Default and the certification by the Clearing House of a Default Loss under Rule 23(b) in respect thereof the Clearing House shall without notice set off in or towards satisfaction of any sums payable to the Clearing House from the defaulter any amount of any Contribution of the defaulter which has become due and repayable in accordance with Rule 23(b). If the Clearing House is to have recourse, in accordance with Rule 16, to the indemnities, guarantees, undertakings or monies provided by Clearing Members other than the defaulter, as soon as practicable the Clearing House shall certify (by a "**Rule 26 Certificate**"):-
 - (a) the amount of the defaulter's Contribution applied under this Rule and the net sum (if any), or each net sum (if more than one), then immediately payable by the defaulter to the Clearing House in respect of the types of Business undertaken by the defaulter, taking into account for this purpose the defaulter's Contribution; and
 - (b) the extent to which any sums so payable by the defaulter to the Clearing House but unpaid may be claimed by the Clearing House under a policy of insurance or analogous instrument relating to losses arising upon a Default.

The Clearing House may issue more than one Rule 26 Certificate in relation to losses arising upon any Default.

Where a Rule 26 Certificate is to be issued, the Clearing House may assume that no recoveries will be made in respect of obligations of the defaulter (beyond the value of its Contributions).

27. The Clearing House may in the exercise of the right conferred by Rule 26 set off the amount due (in accordance with Rule 23(b)) to a defaulter in respect of the defaulter's Contribution or any part thereof against sums owing on any account whether or not it is a client account, and the Clearing House shall have unfettered discretion in this regard.

Application of Fund and Indemnity

28. By virtue of this Rule and its agreement with the Clearing House, and subject to Rule 29, each Clearing Member (for these purposes, a "**Non-Defaulting Clearing Member**") grants a separate limited-recourse indemnity to the Clearing House in respect of each type of Relevant Business in which it participates. In relation to each type of Relevant Business, the indemnity is granted in respect of each Excess Loss

arising in respect of the Relevant Business upon the Default of another Clearing Member. The amount of an indemnity is limited to an aggregate amount not exceeding the amount of the Non-Defaulting Clearing Member's Contribution in respect of the Relevant Business as calculated at the Determination Date immediately before the relevant Default, together with any amount of Unfunded Contribution and any Loss Distribution Charge in respect of the Relevant Business that the Clearing House has called or would be entitled to call from the Non-Defaulting Clearing Member in relation to that Default.

The amount due by a Non-Defaulting Clearing Member in respect of an Excess Loss shall, save as otherwise provided under the ForexClear DMP Annex, the SwapClear DMP Annex or the RepoClear DMP Annex, be the Non-Defaulting Clearing Member's *pro rata* share of such loss arising upon the relevant Default calculated as the proportion of such Member's relevant Contribution relative to the aggregate relevant Contributions of all Clearing Members engaged in the relevant Business other than the relevant defaulter at the time of the relevant Default. The amount so due shall become immediately payable automatically (without any obligation on the part of the Clearing House to make demand on the Clearing Member) upon the issue by the Clearing House of the applicable Rule 26 Certificate. Without prejudice to any other right of set-off or application of funds to which the Clearing House may be entitled, the Clearing House shall forthwith without notice set off any amount due in accordance with Rule 23(c) to a Clearing Member in respect of the relevant Contribution of such Clearing Member in or towards satisfaction of the amount payable by such Clearing Member under this Rule 28.

29. This Rule applies to a defaulter (the "**First defaulter**") where the Contribution of the First defaulter has not been repaid to the First defaulter or applied by the Clearing House under Rule 26, and Aggregate Excess Losses arise upon the Defaults of other Clearing Members. Where this Rule applies, Rule 28 shall have effect with the following modifications:-
- (a) the balances (if any) of the First defaulter's relevant Contributions may be applied under Rule 28 in respect of such relevant Aggregate Excess Losses up to and including the date three months after the date of issue of the Default Notice in respect of the First defaulter's Default; and
 - (b) after the date three months after the date of issue of such Default Notice, the balances (if any) of the First defaulter's relevant Contributions may not be applied under Rule 28 in respect of such relevant Aggregate Excess Losses, but they may be retained on account of losses arising upon the First defaulter's own Default and, for the purposes of Rule 28, they shall be disregarded.
30. The Clearing House shall give notice to each Clearing Member as soon as practicable after an amount has become due in accordance with Rule 28 and of the manner in which it has been satisfied.
31. If, in relation to a Default, the Clearing House has not yet certified in any Rule 26 Certificates issued on or before the Determination Date occurring immediately after the Default all sums which may be or become due to the Clearing House from the defaulter (because such sums will not or may not become liquidated or for any other reason payable until a later date), the Clearing House shall maintain a Contribution from each Clearing Member (other than the defaulter) as cover for the performance by such Clearing Member of its obligation to indemnify the Clearing House in relation to any Aggregate Excess Loss not yet certified. In fulfilment of this requirement the

Clearing House may take any step which appears to the Clearing House to be appropriate, and the steps so taken may include any (including a combination) of the following:-

- (a) postponement of the date for adjustment of Clearing Members' Contributions under Rules C5(a), E5(a), F5, L5(a), S5 or R5, as applicable in the case;
- (b) reduction of the amounts payable to some or all Clearing Members under Rules C5(a)(i), E5(a)(i), F5(a), L5(a)(i), S5(a) or R5(a), as applicable in the case; and
- (c) estimation of the amount of Aggregate Excess Losses which may become certified after the relevant Determination Date as appropriate, and application of Rule 28 as if such estimated amount were already realised as an Aggregate Excess Loss.

The Clearing House shall notify Clearing Members of any steps taken under this Rule.

32. – 32A. Rules no longer in force

Effect of cessation of Clearing Member status

33. Subject to Rule 34, if a date for calculation of a Clearing Member's Contribution occurs after the giving of notice: (i) by or in respect of any Retiring Member; (ii) by a Clearing Member to the Clearing House for the purposes of resigning from a particular Service; or (iii) by the Clearing House to a Clearing Member for the purposes of requiring such Clearing Member to resign from a particular Service (the "**Relevant Service**") (a Clearing Member for the purposes of (ii) and (iii) of this paragraph, a "**Resigning Member**"), and before the termination of such Retiring Member's Clearing Member status or the Resigning Member's resignation from the Relevant Service (as the case may be):-

- (a) if the Retiring Member or Resigning Member is not a defaulter, the amount of such Retiring Member's Contribution or such Resigning Member's Contribution in respect of the Relevant Service shall be determined by the Clearing House on the basis set out in the relevant Supplement without regard to the impending termination of such Retiring Member's Clearing Member status or Resigning Member's resignation (as the case may be), and the provisions of the relevant Supplement as to payment following adjustment of amounts of Contributions shall apply in respect of such Contribution accordingly;
- (b) if the Retiring Member or Resigning Member is a defaulter, the balance of such Retiring Member's Contribution or such Resigning Member's Contribution in respect of the Relevant Service (as the case may be) after any part of it has been applied under Rule 26 or Rule 28 shall not be subject to adjustment under the relevant Supplement, and the provisions of the relevant Supplement as to payment following adjustment of amounts of Contributions shall not apply to such Retiring Member or Resigning Member in respect of the Relevant Service.

Notwithstanding the foregoing, in such circumstances, when the amounts of the respective Contributions of all Clearing Members other than any Retiring Member or any Resigning Member in respect of the Relevant Service are determined in

accordance with the relevant Supplement, the Clearing House shall disregard any Clearing Member which is a Retiring Member or, in relation to a Relevant Service, any Resigning Member in respect of that Relevant Service, in particular disregarding such Clearing Member's daily margin requirement and such Clearing Member's daily number of Contracts and treating any such Retiring Member as no longer being a Clearing Member or any such Resigning Member as no longer being a Clearing Member in respect of the Relevant Service.

34. This Rule applies at any date for calculation of a Clearing Member's Contribution falling after a Retiring Member has given notice of the termination of its Clearing Member status, where another Clearing Member (the "**Continuing Member**") has arranged to undertake clearing on behalf of the Retiring Member. If, in the opinion of the Clearing House, the Contribution of the Continuing Member determined under the relevant Supplement does not fairly reflect the Continuing Member's share of clearing activity, the Clearing House may determine the Contribution of the Continuing Member as if the relevant Business carried on by the Retiring Member were part of the relevant Business carried on by the Continuing Member. If the Clearing House determines the amount of a Continuing Member's Contribution under this Rule, the Clearing House shall give notice to the Continuing Member, and the provisions of Rule 33 shall not apply.
35. A Retiring Member and a Resigning Member in respect of a Relevant Service shall, until the completion of the process set out in Rule 8 in relation to any Default, continue to be liable under its Rule 28 indemnity in respect of Aggregate Excess Losses arising upon such Default, notwithstanding that the Clearing Member status of the Retiring Member has terminated or that the Resigning Member has resigned in respect of the Relevant Service before that time. While a Retiring Member or Resigning Member continues to be so liable, it shall transfer such Collateral as the Clearing House shall require in respect of its liability in relation to any Aggregate Excess Losses not yet certified, subject to such cover not exceeding the Retiring Member's Contribution at the time of the termination of its clearing membership, or the Resigning Member's Contribution to the Relevant Service at the time of its resignation. In fulfilment of this requirement, the Clearing House may take any step which appears to the Clearing House to be appropriate, including postponement of the date for repayment of part or all of the Retiring Member's Contribution or Resigning Member's Contribution in respect of the Relevant Service (as the case may be). The Clearing House shall notify the Retiring Member or Resigning Member of any steps taken under this Rule.

Recoveries from defaulters

36. If all or part of the Contributions of any Clearing Member shall have been applied in accordance with Rule 28, the Clearing House shall (except as otherwise provided in a Supplement) account to each such Clearing Member (whether or not it remains at the relevant time a Clearing Member of the Clearing House) in respect of any Net Recovery, pro rata to the respective amounts applied in accordance with Rule 28 in relation to the relevant Default and in an amount not exceeding, in relation to each such Clearing Member, the amount of its Contributions so applied.
37. Rules no longer in force

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 a ForexClear Unfunded 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 subsequent month, and otherwise in accordance with paragraph (g) 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 to the end of the period referred to in (i) above (or such period as has already been extended pursuant to this subparagraph (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 a "**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).
 - (c) the "**ForexClear Fund Amount**" shall be calculated in United States Dollars ("**USD**"), and, for a given ForexClear Determination Date, shall be the largest of the 30 Combined Loss Values determined under Rule (b) plus 10%. The ForexClear Fund Amount shall not be less than USD 70 million (the "**ForexClear Fund Floor**");
 - (d) the FXCCM's "**ForexClear Margin Weight**" shall be calculated by dividing the average daily initial margin requirement (as calculated under the Procedures or other arrangements applicable) which has applied to the FXCCM during the reference period in Rule F2(b), above, in respect of all ForexClear Contracts to which the FXCCM is a party by the total of such average daily requirements applied to all Non-Defaulting FXCCMs;

- (e) the FXCCM's "**Preliminary ForexClear Contribution**" shall be calculated by multiplying the ForexClear Fund Amount by the FXCCM's ForexClear Margin Weight;
- (f) if the FXCCM's Preliminary ForexClear Contribution is below the Minimum ForexClear Contribution for the time being, the FXCCM's ForexClear Contribution shall be the Minimum ForexClear Contribution; and
- (g) subject to a suspension pursuant to Rule F2(a), the Clearing House may recalculate the ForexClear Fund Amount on any business day if the Combined Loss Value differs by more than 25% 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; and
- (c) no account shall be taken, in calculating the initial margin requirement or ForexClear Margin Weight under Rule F2 of any offsets in the initial margin required for ForexClear Contracts from an FXCCM, which may otherwise be permissible under the Procedures or other arrangements applicable.

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.

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 and (b) any supplementary sum determined by the Clearing House in its discretion and notified to the New Member. 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 as 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;
- (b) if the amount of the ForexClear Contribution of an FXCCM immediately before close of business on the relevant ForexClear Determination Date is the same as the amount of the FXCCM's ForexClear Contribution as so

determined under Rule F2 as at close of business on that day, no sum shall then be payable by or to such FXCCM in respect of its Contribution; and

- (c) if the amount of the ForexClear Contribution of an FXCCM immediately before close of business on the relevant ForexClear Determination Date is less than the amount of the FXCCM's ForexClear Contribution as so determined under Rule F2 as at close of business on that day, the shortfall shall be paid by such FXCCM to the Clearing House in USD in accordance with the Procedures.

The provisions of this Rule do not apply to a Defaulting FXCCM, unless the Clearing House so permits in any particular case.

- F6. On any day, interest shall accrue on the amount of each ForexClear Contribution then held by the Clearing House, to the extent that it has not been applied under Rule 26 or Rule 28, at such rate and in such manner as provided by the Procedures, provided that the rate of interest for any particular day shall not be less than the Fed Funds Rate published on that day (or, in relation to any day for which the Fed Funds Rate is not available, the Fed Funds Rate most recently published before such day). Interest shall be payable in arrear and shall be paid on the date or dates specified by the Procedures. In these Default Fund Rules, any interest which has accrued under this Rule shall not be regarded as part of the ForexClear Contribution.
- F7. Where, after a Default, the Clearing House has applied part or all of a ForexClear Contribution under Rule 26 or Rule 28, the ForexClear Fund Amount shall be reduced forthwith by the aggregate amount of the ForexClear Contributions or parts of ForexClear Contributions so applied and the amount of the ForexClear Contribution that each FXCCM must maintain with the Clearing House shall be reduced by the amount of its ForexClear Contribution which has been applied pursuant to Rule 28, in each case until the next ForexClear Determination Date. Unless and until the Clearing House has repaid a defaulter's ForexClear Contribution (or remaining part thereof, as applicable), the ForexClear Fund Amount shall be treated as having been reduced by the amount of the defaulter's ForexClear Contribution (if any), regardless of whether the Clearing House has applied part or all of that ForexClear Contribution under Rule 26.
- F8. Where, after a Default, the Clearing House determines that (i) by reason of a reduction in accordance with Rule F7, the value of the ForexClear Fund Amount has been reduced by at least 25%; or (ii) by the time of the ForexClear Default Management Process Completion Date in relation to the relevant Default, the value of the ForexClear Fund Amount will be reduced by at least 25%, the Clearing House may, by notice in writing (the "*ForexClear Unfunded Contribution Notice*"), require each Non-Defaulting FXCCM to deposit and maintain an amount (each a "*ForexClear Unfunded Contribution*") in accordance with the following provisions:
 - (a) ForexClear Unfunded Contributions will only be payable in circumstances where the relevant ForexClear Unfunded Contribution Notice is delivered by the Clearing House to FXCCMs prior to the ForexClear Default Management Process Completion Date in relation to the relevant Default;
 - (b) the value of the ForexClear Unfunded Contribution payable by each individual FXCCM shall be the product of (i) the percentage by which the value of the ForexClear Fund Amount has been reduced and (ii) the value of the ForexClear Contribution of such FXCCM as determined by the Clearing

House at the last ForexClear Determination Date prior to the date when the relevant Default occurred;

- (c) the Clearing House may, by the delivery of one or more further ForexClear Unfunded Contribution Notices, require each Non-Defaulting FXCCM to pay one or more further ForexClear Unfunded Contributions in respect of the same Default, provided that the total value of the ForexClear Unfunded Contributions payable by an individual FXCCM in respect of a particular Default (determined in accordance with paragraph (b) above) may not exceed the value of the ForexClear Contribution of such FXCCM as at the last ForexClear Determination Date prior to the date when the relevant Default occurred; and
- (d) following a Default in respect of which ForexClear Unfunded Contributions were paid (the "**First Default**"), the Clearing House may require the payment of further ForexClear Unfunded Contributions in respect of subsequent Defaults (which, for the avoidance of doubt, can never be a First Default), provided that ForexClear Unfunded Contributions will not be payable in respect of any more than three Defaults in any six month period (commencing on the date of delivery of the first ForexClear Unfunded Contribution Notice in respect of the First Default).

FXCCMs will be required to deposit the full amount of their ForexClear Unfunded Contributions (without exercising any rights of set-off or counterclaim) with the Clearing House on the business day following receipt of a ForexClear Unfunded Contribution Notice.

For the avoidance of doubt, references to "FXCCMs" for the purposes of this Rule F8 include any FXCCM (other than a Defaulting FXCCM) who is: (i) a Retiring Member but whose status as a Clearing Member has not yet been terminated; and (ii) a Resigning Member whose resignation from the ForexClear Service is not yet effective.

F9. ForexClear Loss Distribution Process

Where, after a Default, the Clearing House determines that the ForexClear Excess Loss resulting from the Default will exceed the amounts to be applied to it under Rule 16(a) to (g), the Clearing House may implement the process (the "**ForexClear Loss Distribution Process**") described in this Rule F9.

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

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

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

"Available Resources" means, in respect of any Loss Distribution Period, the amounts available to the Clearing House for application in meeting any loss suffered or incurred by the Clearing House in accordance with Rule 16(a) to (g) as at the relevant Last Call Prior to Default.

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

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

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

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

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

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

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

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

"Cash Payment Type" means each of the Price Alignment Interest (as defined in the ForexClear Procedures), consideration (fee) payments and cash Collateral in respect of variation margin obligations transferrable in respect of a Margin Account of a Non-Defaulting FXCCM.

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

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

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

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

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

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

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

where:

"LUL" means the LCH Uncovered Loss; and

"TCG" means the Total Cash Gains.

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

"Last Call Prior to Default" means the most recent business day on which the margin obligations of the FXCCMs were discharged in full.

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

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

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

where:

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

"CLC" means the Cumulative LCH Transfer Cost;

"TAR" means the Total Available Resources; and

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

"Loss Distribution Cap Amount" means, in respect of each Non-Defaulting FXCCM and any Loss Distribution Period, an amount equal to the higher of (i) USD 100,000,000; (ii) the product of (a) 100 per cent. and (b) the ForexClear Contribution of such Non-Defaulting FXCCM as at the last ForexClear Determination Date prior to the date when the Default occurred at the beginning of that Loss Distribution Period; and (iii) any adjusted cap as may be agreed pursuant to paragraph (d) of this Rule F9.

"Loss Distribution Day" means any business day in a Loss Distribution Period on which the Clearing House, in consultation with the ForexClear DMG, prior to calling for: (i) Collateral in respect of margin obligations in accordance with the provisions of the Procedures; and (ii) Required Collateral, on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which a Default occurs with respect to an FXCCM to but excluding the earlier of: (i) the business day on which (a) the rights and obligations arising out of the Auction Portfolios of the Defaulting FXCCM are transferred to those FXCCMs which have successfully bid for such Auction Portfolios in Auctions, or, if any Default occurs with respect to any other FXCCM prior to the end of a Loss Distribution Period, the rights and obligations arising out of the Auction Portfolios of any subsequent Defaulting FXCCM are transferred to those FXCCMs who have successfully bid for such Auction Portfolios in Auctions and (b) all payments required to be made by such FXCCMs and/or the Clearing House in respect of such Auction(s) have been made in full; or (ii) any Loss Distribution Day in respect of which the Clearing House determines that the FXCCM Adjustment Amount for any FXCCM would be equal to or greater than the Loss Distribution Cap Amount for such Loss Distribution Day.

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

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

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

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

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

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

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

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

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

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

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

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

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

(i) **Cash Gainer**

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

where:

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

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

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

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

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

(ii) Cash Loser

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

where

Cash Loser Base Currency Adjustment to Cash Payment(t) = PHG(t) – (CHG(t) – CAG(t-1))

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

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

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

(iii) Application of Payment Currency Adjustment to Cash Payment

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

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

The Clearing House shall apply all payments it receives in respect of Cash Gainer Payment Currency Adjustment to Cash Payments solely for the purposes of meeting any loss incurred by the Clearing House following, and in relation to, each Default, as contemplated in accordance with Rule 16(a) to (g).

(d) **Adjustment to Loss Distribution Cap Amount**

If, during a Loss Distribution Period, the Clearing House considers that the Cash Gainer Payment Currency Adjustment to Cash Payments applied to a particular Margin Account of an FXCCM are, or are about to be equal to or greater than the Loss Distribution Cap Amount, the Clearing House may

propose an adjustment to such Loss Distribution Cap Amount. If agreed by all Non-Defaulting FXCCMs, the Loss Distribution Cap Amount as adjusted pursuant to this paragraph (d) shall be applicable for the remainder of the relevant Loss Distribution Period.

(e) **No Rebate**

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

(f) **Application of any Recoveries**

If the ForexClear Loss Distribution Process has been invoked by the Clearing House in accordance with this Rule F9, the Clearing House shall reimburse the FXCCMs (irrespective of whether they remain FXCCMs at the time of the recovery) and the Clearing House on a *pro rata* basis by reference to the resources which have been applied pursuant to Rule 16(a) to (g) and including the net amount of any one or more FXCCM Adjustment Amounts paid by the relevant FXCCMs:

- (i) any amounts received from the Defaulting FXCCM as a result of the Clearing House being a creditor of the Defaulting FXCCM in respect of the ForexClear Business of such Defaulting FXCCM in the context of the occurrence of any of the events under Rule 5(i) to (p) in respect of the Defaulting FXCCM or otherwise, other than in respect of sums due to the Clearing House for its own account; or
- (ii) any other amounts howsoever obtained or recovered in the course of the Clearing House's operation of the ForexClear Default Management Process or which are otherwise referable to the Defaulting FXCCM,

in each case net of any related expenses incurred by the Clearing House or other sums owing to the Clearing House by the Defaulting FXCCM in connection with the ForexClear Service. For the avoidance of doubt, nothing in this paragraph (f) shall oblige the Clearing House to pursue any litigation or other action in order to recover the amounts contemplated above and if another default fund of the Clearing House has also been applied as a result of the FXCCM's Default, any amounts recovered shall be applied *pari passu* as between the relevant default funds

- F10. Where, after the Default of one or more FXCCMs, the Clearing House determines that, notwithstanding the availability of any resources remaining under Rule 16(a) to (g) and the availability of the ForexClear Loss Distribution Process in accordance with the terms of Rule F9, it is clear that the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of those ForexClear Contracts to which it is party with Non-Defaulting FXCCMs, the Clearing House will by notice in writing (a "*ForexClear Voluntary Payment Notice*"): (i) inform all Non-Defaulting FXCCMs that it has insufficient resources and that it is likely to invoke Rule F11; and (ii) invite each Non-Defaulting FXCCM to make a payment of funds (a "*ForexClear Voluntary Payment*"), in accordance with Rule 16(g), to make up for the relevant shortfall.

ForexClear Voluntary Payments will be made on the following terms:

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

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

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

F11. Where, following the process for inviting ForexClear Voluntary Payments in accordance with Rule F10, the Clearing House makes a determination (an "*Insufficient Resources Determination*") that it is clear that the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of those ForexClear Contracts to which it is party with Non-Defaulting FXCCMs, the following provisions shall have effect:

- (a) All outstanding ForexClear Contracts shall be closed out as of the clearing day following the date the Insufficient Resources Determination was made and any further obligations to make any payments under or in respect of such ForexClear Contracts shall cease. The closing prices used shall be mid prices calculated by the Clearing House in accordance with the methodology used by it to carry out end of day margin runs in respect of the outstanding ForexClear Contracts. Where such data is not available to the Clearing House, the closing price shall be the last price used by the Clearing House to calculate the variation margin requirement for the position to be closed out.
- (b) On the basis of the close out values established for each outstanding ForexClear Contract, an account shall be taken (as at the time of close out) of what is due in respect of each FXCCM, from that FXCCM to the Clearing House and from the Clearing House to that FXCCM, as well as all other amounts owing under or in respect of ForexClear Contracts and any other amounts that may be due in respect of the ForexClear Service (including for these purposes, a proportionate share of any amounts owed generally to or from the Clearing House), and the sums due from the FXCCM shall be set off against the sums due from the Clearing House and only the balance of the account shall be payable. For the avoidance of doubt, amounts in respect of ForexClear Contracts shall include, but not be limited to, returns of cash Collateral held by the Clearing House in respect of the FXCCM's variation margin obligations and the repayment of any Net Cash Gainer Payment Currency Adjustment to Cash Payments made in the ForexClear Default Period to which the Insufficient Resources Determination relates (and in

respect of which F9(e) shall be specifically disapplied), but shall exclude the repayment of any cash Collateral held by the Clearing House in respect of the FXCCM's initial margin obligations or any outstanding ForexClear Contributions.

To the extent that the aggregate of all of the amounts owed to the Clearing House by FXCCMs plus all of those other resources applicable to the ForexClear Clearing Service under Rule 16(a) to (g) that have not been applied towards a ForexClear Excess Loss is less than the aggregate of the amounts owed to FXCCMs by the Clearing House, each amount owed to FXCCMs by the Clearing House shall be reduced pro rata the shortfall.

- (c) The Clearing House shall determine any amounts due to each FXCCM in respect of cash Collateral held by the Clearing House in respect of the initial margin obligations of the FXCCM and outstanding ForexClear Contributions to be repaid. The claim of each such FXCCM in respect of the foregoing shall be reduced in proportion to an amount by which (i) the value of the assets available to the Clearing House to meet the return obligations referred to in (ii) bears to (ii) the value of what would be due from the Clearing House to the Clearing Members in aggregate in respect of the return of cash Collateral held by the Clearing House in respect of the Clearing Members' initial margin obligations and in respect of outstanding Contributions.
- (d) For each FXCCM, the amount due to it or due from it as determined pursuant to (b) shall be aggregated with its claim determined pursuant to (c) above and only the net sum shall be payable. Where the result of such calculations is that an FXCCM owes an amount to the Clearing House, that FXCCM shall pay that amount to the Clearing House immediately. Where the result of such calculations is that an FXCCM is owed an amount by the Clearing House, the Clearing House shall pay that amount to the FXCCM immediately, subject to (f) below.
- (e) The payment of such amount to an FXCCM, pursuant to (d) above subject to any re-calculations performed pursuant to (f) below, shall constitute the full and final payment in respect of the ForexClear Service and such FXCCM shall not be permitted to make any further claims on the Clearing House in respect of amounts relating to the ForexClear Service, nor shall it be permitted to notify the Clearing House of a Termination Date pursuant to Regulation 39A for a failure to pay any amounts in relation to the ForexClear Service.
- (f) The Clearing House may make the payments due under (d) above in one or more instalments to the FXCCMs in proportion to the value of their claims on the Clearing House under (b) above if some but not all of the amounts due under (d) or Rule 16(a) to 16(g) above have not yet been received. The Clearing House shall take reasonable steps to recover such amounts and may deduct therefrom reasonable administration costs for such recovery. To the extent that the Clearing House determines that any such amounts will not in fact be recoverable, it shall re-determine the amounts due to FXCCMs in accordance with this Rule F11.
- (g) This Rule F11 shall not be applied in the event that a Termination Date has been specified in relation to the Clearing House in accordance with Regulation 39A.

- (h) Nothing in the foregoing shall override the obligation of the Clearing House to return non-cash Collateral transferred to it in respect of initial margin pursuant to the Regulations and Procedures.

F12. Ballot Arrangements

- (a) Notwithstanding anything to the contrary in clauses 9.4 and 9.5 of the Clearing Membership Agreement, no proposal for any of the amendments set out in paragraphs (i), (ii) and (iii) below (each a “**ForexClear Amendment**”) shall be capable of coming into effect unless first approved in a ballot of FXCCMs:
 - (i) any amendment to the value of the ForexClear Fund Floor as provided for in paragraph (c) of Rule F2 or as subsequently approved in a ballot under this Rule F12;
 - (ii) any amendment providing for a change in the nature of the liabilities for which an FXCCM’s indemnity is given by virtue of paragraph (b) of Rule 28; and
 - (iii) any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the FXCCMs but not in the commitments of any other Clearing Members,
- (b) For the purposes of a ballot conducted pursuant to this Rule F12, the provisions of clauses 9.4, 9.6 and 9.7 of the Clearing Membership Agreement shall apply with the following amendments:
 - (i) the words “major amendment to the Default Fund Rules” in the first line of clause 9.4 of the Clearing Membership Agreement shall be replaced with the words “ForexClear Amendment”;
 - (ii) all references to “Clearing Members” shall be replaced with references to “FXCCMs”;
 - (iii) in paragraph (c) of clause 9.4 of the Clearing Membership Agreement, the reference to “Contributions” shall be replaced with a reference to “ForexClear Contributions” and the reference to “Quarter Day” shall be replaced with a reference to “ForexClear Determination Date”;
 - (iv) references to “Fund Amount” in clauses 9.6 and 9.7 of the Clearing Membership Agreement shall be replaced with references to “ForexClear Fund Amount”;
 - (v) the reference to “clause 9.4” in clause 9.6 of the Clearing Membership Agreement shall be replaced with a reference to “Rule F12 of the ForexClear Default Fund Supplement to the Default Fund Rules”; and
 - (vi) the references to “Contribution” in clauses 9.6 and 9.7 of the Clearing Membership Agreement shall be replaced with references to “ForexClear Contribution”.
- (c) Only General Clearing Members shall be entitled to vote in a ballot conducted under clauses 9.4 and 9.5 of the Clearing Membership Agreement in relation

to an amendment which affects exclusively any one or combination of: (i) the EquityClear Fund Amount; (ii) the Exchange Fund Amount; (iii) the nature of the liabilities for which a General Clearing Member's indemnity is given by virtue of paragraph (b) of Rule 28; or (iv) any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the General Clearing Members but not in the commitments of any other Clearing Members. As a result, for the purposes of a ballot conducted under clauses 9.4 and 9.5 of the Clearing Membership Agreement other than a Cross-Service Ballot, references to "Clearing Members" shall not include FXCCMs who are not also General Clearing Members and ForexClear Contributions shall not count as "Contributions".

- F13. For the purposes of this paragraph (c) of this Rule F12, a "Cross-Service Ballot" shall mean: (i) a ballot in relation to an amendment which represents a significant change in the commitments of all of the Clearing Members of the Clearing House or of a significant section of such Clearing Members of the Clearing House who are so categorised together, irrespective of and independently from, the Services which they clear; and, as such (ii) a ballot which falls within paragraph (c) of clause 9.5 of the Clearing Membership Agreement (because, in the opinion of the Board of Directors of the Clearing House, it is an amendment which "would represent a significant change in the commitments of... a significant section of the Clearing Members") but does not fall within paragraph (a)(iii) of this Rule F12, paragraph (a)(iii) of Rule S12 and/or paragraph (a)(ii) of Rule R12 (because the relevant section of the Clearing Members is not restricted to Clearing Members acting in the capacity of Clearing Members in ForexClear, SwapClear and/or RepoClear).

SwapClear Default Fund Supplement

- S1. On each business day, the Clearing House will determine a "**Combined Loss Value**" in respect of each of the 60 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 SwapClear Business (for a given scenario).
- S2. Each SCM's SwapClear Contribution (other than a SwapClear Unfunded Contribution) shall be determined by the Clearing House in accordance with the following provisions:
- (a) determinations will be made by the Clearing House at the close of business on the first business day of each month, and otherwise in accordance with paragraph (p) below (each a "**SwapClear Determination Date**"). In addition, the amount payable in respect of the SwapClear Contribution of an SCM which is a New Member will be determined on the date that the relevant New Member joins the SwapClear Service. Notwithstanding the foregoing, following a Default, any determinations on a SwapClear Determination Date and any such SwapClear Determination Date which might otherwise have occurred under this Rule S2 shall be suspended for the duration of the period (the "**SwapClear 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 SwapClear 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 sub-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 SwapClear 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) the "**SwapClear Segregated Fund Amount**" shall be denominated in pounds sterling, and, for a given SwapClear Determination Date, shall be the largest of the 60 Combined Loss Values determined under Rule S1 plus 10%. The SwapClear Segregated Fund Amount shall not be less than £1 billion pounds (the "**SwapClear Fund Floor**") and shall not be more than £5 billion pounds (the "**SwapClear Fund Cap**");
 - (c) the "**SwapClear Tolerance Amount**" shall be the value of that portion of the SwapClear Segregated Fund Amount which relates to those SwapClear default fund resources which have been determined by the Clearing House as being required in relation to SwapClear Tolerance;
 - (d) the "**SwapClear Tolerance Weight**" of an SCM (other than an SCM which is a New Member) shall be calculated by dividing (i) the average SwapClear Tolerance Utilisation of the relevant SCM during the 20 business day period preceding the relevant SwapClear Determination Date in respect of all SwapClear Contracts to which such SCM is a party, which average shall be

calculated by adding together the peak SwapClear Tolerance Utilisation of such SCM for each relevant business day and then dividing such sum by 20 provided that: (x) for SCMs where the peak SwapClear Tolerance Utilisation does not yet exist or is otherwise unavailable in respect of a business day, the Clearing House shall estimate the relevant peak SwapClear Tolerance Utilisation by reference to the actual or expected level of clearing activity of the relevant SCM in relation to SwapClear Contracts; by (ii) the total of such average SwapClear Tolerance Utilisations of all Non-Defaulting SCMs other than SCMs which are New Members;

- (e) the value of the "**SwapClear Tolerance Contribution Amount**" of: (x) an SCM (other than an SCM which is a New Member) shall be calculated by multiplying the SwapClear Tolerance Amount by the SCM's SwapClear Tolerance Weight, provided that (i) where that calculation results in a value which is less than or equal to £3 million pounds, or in the case of a New Member, the value of the relevant SCM's SwapClear Tolerance Contribution Amount shall be £3 million pounds; and (ii) where that calculation results in a value which is greater than or equal to £30 million pounds, the value of the relevant SCM's SwapClear Tolerance Contribution Amount shall be £30 million pounds; and (y) a New Member shall be £3 million pounds PROVIDED FURTHER that where, as a result of the adjustments in individual SCM SwapClear Tolerance Contribution Amounts as described in this paragraph, the aggregate of the SwapClear Tolerance Contribution Amounts is greater or less than the SwapClear Tolerance Amount the Clearing House will adjust SCMs individual SwapClear Tolerance Contribution Amounts such that the aggregate of the SwapClear Tolerance Contributions equals the SwapClear Tolerance Amount;
- (f) the "**SwapClear Non-Tolerance Amount**" shall be the value of that portion of the SwapClear Segregated Fund Amount which relates to SwapClear default fund resources other than those which have been determined by the Clearing House as being required in relation to SwapClear Tolerance;
- (g) the "**SwapClear Non-Tolerance Weight**" of an SCM (other than an SCM which is a New Member) shall be calculated by dividing (i) the average daily initial margin requirement (as calculated under the Procedures or other arrangements applicable) which has applied to the SCM during the 20 business day period preceding the relevant SwapClear Determination Date in respect of all SwapClear Contracts to which such SCM is a party by (ii) the total of such average daily requirements applied to all Non-Defaulting SCMs other than SCMs which are New Members;
- (h) the "**SwapClear Non-Tolerance Contribution Amount**" of an SCM other than an SCM which is a New Member shall be calculated by multiplying that SCM's SwapClear Non-Tolerance Weight by the SwapClear Non-Tolerance Amount;
- (i) the "**SwapClear Contribution**" of: (x) an SCM (other than an SCM which is a New Member) shall be the sum of (i) that SCM's SwapClear Non-Tolerance Contribution Amount adjusted, where applicable, in accordance with paragraph (j) or (o) below; and (ii) that SCM's Tolerance Contribution Amount; and (y) an SCM which is a New Member shall be calculated in accordance with S4.

- (j) if an SCM's SwapClear Non-Tolerance Contribution Amount (calculated in accordance with paragraph (h) above) is below the Minimum Non-Tolerance SwapClear Contribution for the time being, the SCM's SwapClear Non-Tolerance Contribution Amount shall be adjusted so as to the Minimum Non-Tolerance SwapClear Contribution. Provided that where, as a result of the adjustments in individual SCM SwapClear Non-Tolerance Contributions Amounts as described in this paragraph, the aggregate of the SwapClear Non-Tolerance Contribution Amounts is greater than the SwapClear Non-Tolerance Amount the Clearing House will adjust individual SwapClear Non-Tolerance Contribution Amounts such that the aggregate of the SwapClear Non-Tolerance Contributions equals the SwapClear Non-Tolerance Amount;
- (k) the "**SwapClear Actual Total**" shall be calculated by adding together (i) the amount which is the product of the Minimum Non-Tolerance SwapClear Contribution and the number of Minimum SwapClear Contribution Members; and (ii) the aggregate SwapClear Non-Tolerance Contribution Amounts (calculated in accordance with paragraph (h) above) of those SCMs which are not Minimum SwapClear Contribution Members; (iii) the aggregate SwapClear Tolerance Contribution Amounts of all SCMs other than SCMs which are New Members; and (iv) the aggregate SwapClear Contributions of all SCMs which are New Members;
- (l) where the SwapClear Actual Total is greater than the SwapClear Fund Cap, the "**SwapClear Excess**" shall be the arithmetical difference between the SwapClear Actual Total and the SwapClear Fund Cap;
- (m) where the SwapClear Actual Total is less than the SwapClear Fund Floor, the "**SwapClear Shortfall**" shall be the arithmetical difference between the SwapClear Fund Floor and the SwapClear Actual Total;
- (n) for each SCM other than a Minimum SwapClear Contribution Member or a New Member: (i) the SCM's "**SwapClear Discount**" (if any) shall be such SCM's *pro rata* share of the SwapClear Excess calculated as the proportion of such SCM's SwapClear Non-Tolerance Contribution Amount relative to the aggregate SwapClear Non-Tolerance Contribution Amounts of all SCMs other than Minimum SwapClear Contribution Members and New Members; and (ii) the SCM's "**SwapClear Increase**" (if any) shall be such SCM's *pro rata* share of the SwapClear Shortfall calculated as the proportion of such SCM's SwapClear Non-Tolerance Contribution Amount relative to the aggregate SwapClear Non-Tolerance Contribution Amounts of all SCMs other than Minimum SwapClear Contribution Members and New Members;
- (o) for each SCM other than a Minimum SwapClear Contribution Member or a New Member, the SCM's SwapClear Non-Tolerance Contribution Amount shall be adjusted by (i) the subtraction of any SwapClear Discount applicable to the SCM; or (ii) plus the addition of any SwapClear Increase applicable to the SCM; provided that if the application of any SwapClear Discount would result in a SwapClear Non-Tolerance Contribution Amount of an SCM that is less than the Minimum Non-Tolerance SwapClear Contribution, such SCM shall pay the Minimum Non-Tolerance SwapClear Contribution in respect of the SwapClear Non-Tolerance Contribution Amount applicable to it, notwithstanding that the arithmetical sum of SwapClear Contributions paid by all SCMs may thereby exceed the SwapClear Fund Cap; and

- (p) the Clearing House may recalculate the SwapClear Segregated Fund Amount and the SwapClear Contributions due from each SCM on any business day if the largest of the 60 Combined Loss Values determined under Rule S1 on that day differs by more than 25% from the Combined Loss Value on which the previous SwapClear Contribution determination was based and, on such business day, the Clearing House shall be entitled to require those SCMs whose portfolios have caused the increase in the Combined Loss Value to pay an additional amount in respect of their SwapClear Contributions.
- S3. For the purposes of the calculations under Rule S2:
- (a) references to "SwapClear Clearing Members" or "SCMs" do not include references to Defaulting SCMs (apart from any Defaulting SCM in respect of which the Clearing House permits the application of Rule S2) or persons which were formerly SCMs but are not SCMs at the SwapClear 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 pounds, notwithstanding that the arithmetical sum of SwapClear Contributions paid by all SCMs may thereby exceed the SwapClear Fund Cap; and
- (c) no account shall be taken, in calculating the initial margin requirement or SwapClear Non-Tolerance Weight under Rule S2 of any offsets in the initial margin required for SwapClear Contracts from an SCM, which may otherwise be permissible under the Procedures or other arrangements applicable.
- Provided that the SCM is not a defaulter, the amount of its SwapClear Contribution shall be calculated in accordance with and subject to Rule S2. The provisions of Rule S2 and this Rule do not apply to a Defaulting SCM, unless the Clearing House so permits in any particular case.
- S4. Without prejudice to any other requirements which the Clearing House may impose, the amount of the SwapClear Contribution of a New Member shall be the sum of (a) the Minimum Non-Tolerance SwapClear Contribution; (b) the SwapClear Tolerance Contribution Amount; and (c) any supplementary sum determined by the Clearing House in its discretion and notified to the New Member. 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.
- S5. Upon determination of the amount of a SwapClear Contribution in accordance with Rule S2:
- (a) if the amount of the SwapClear Contribution of an SCM immediately before close of business on the relevant SwapClear Determination Date exceeds the amount of the SCM's SwapClear Contribution as determined under Rule S2 as at close of business on that day, the excess shall be paid by the Clearing House to such SCM in accordance with the Procedures;
- (b) if the amount of the SwapClear Contribution of an SCM immediately before close of business on the relevant SwapClear Determination Date is the same as the amount of the SCM's SwapClear Contribution as so determined, no sum shall then be payable by or to such SCM in respect of its Contribution; and

- (c) if the amount of the SwapClear Contribution of an SCM immediately before close of business on the relevant SwapClear Determination Date is less than the amount of the SCM's SwapClear Contribution as so determined, the shortfall shall be paid by such SCM to the Clearing House in accordance with the Procedures.

The provisions of this Rule do not apply to a Defaulting SCM, unless the Clearing House so permits in any particular case.

- S6. On any day interest shall accrue on the amount of each SwapClear Contribution then held by the Clearing House, to the extent that it has not been applied under Rule 26 or Rule 28, in such manner as provided by the Procedures and at a SONIA-linked rate determined, in light of market conditions at such time, by the Clearing House from time to time and notified by the Clearing House to SwapClear Clearing Members. Interest shall be payable in arrear and shall be paid on the date or dates specified by the Procedures. In these Default Fund Rules any interest which has accrued under this Rule shall not be regarded as part of the SwapClear Contribution. For the avoidance of doubt, if the rate of interest payable on SwapClear Contributions is negative, interest shall be payable by SwapClear Clearing Members to the Clearing House.
- S7. Where, after a Default, the Clearing House has applied part or all of a SwapClear Contribution under Rule 26 or Rule 28, the SwapClear Segregated Fund Amount shall be reduced forthwith by the aggregate amount of the SwapClear Contributions or parts of SwapClear Contributions so applied and the amount of the SwapClear Contribution that each SCM must maintain with the Clearing House shall be reduced by the amount of its SwapClear Contribution which has been applied pursuant to Rule 28, in each case until the next SwapClear Determination Date. Unless and until the Clearing House has repaid a defaulter's SwapClear Contribution (or remaining part thereof, as applicable), the SwapClear Segregated Fund Amount shall be treated as having been reduced by the amount of the defaulter's SwapClear Contribution (if any), regardless of whether the Clearing House has applied part or all of that SwapClear Contribution under Rule 26.
- S8. Where, after a Default, the Clearing House determines that (i) by reason of a reduction in accordance with Rule S7, the value of the SwapClear Segregated Fund Amount has been reduced by at least 25%; or (ii) by the time of the SwapClear Default Management Process Completion Date in relation to the relevant Default the value of the SwapClear Segregated Fund Amount will be reduced by at least 25%, the Clearing House may, by notice in writing (the "**SwapClear Unfunded Contribution Notice**"), require each Non-Defaulting SCM to deposit and maintain an amount (each a "**SwapClear Unfunded Contribution**") in accordance with the following provisions:
- (a) SwapClear Unfunded Contributions will only be payable in circumstances where the relevant SwapClear Unfunded Contribution Notice is delivered by the Clearing House to SCMs prior to the SwapClear Default Management Process Completion Date in relation to the relevant Default;
- (b) the value of the SwapClear Unfunded Contribution payable by each individual SCM shall be the product of (i) the percentage by which the value of the SwapClear Segregated Fund Amount has been reduced and (ii) the value of the SwapClear Contribution of such SCM as at the last SwapClear Determination Date prior to the date when the relevant Default occurred;

- (c) the Clearing House may, by the delivery of one or more further SwapClear Unfunded Contribution Notices, require each Non-Defaulting SCM to pay one or more further SwapClear Unfunded Contributions in respect of the same Default, provided that the total value of the SwapClear Unfunded Contributions payable by an individual SCM in respect of a particular Default (determined in accordance with paragraph (b) above) may not exceed the value of the SwapClear Contribution of such SCM as at the last SwapClear Determination Date prior to the date when the relevant Default occurred; and
- (d) following a Default in respect of which SwapClear Unfunded Contributions were paid (the "**First Default**"), the Clearing House may require the payment of further SwapClear Unfunded Contributions in respect of subsequent Defaults, (which, for the avoidance of doubt, can never be a First Default), provided that SwapClear Unfunded Contributions will not be payable in respect of any more than three Defaults in any six month period (commencing on the date of delivery of the first SwapClear Unfunded Contribution Notice in respect of the First Default).

SCMs will be required to deposit the full amount of their SwapClear Unfunded Contributions (without exercising any rights of set-off or counterclaim) with the Clearing House on the business day following receipt of a SwapClear Unfunded Contribution Notice.

For the avoidance of doubt, references to "SCMs" for the purposes of this Rule S8 include any SCM (other than a Defaulting SCM) who is: (i) a Retiring Member but whose status as a Clearing Member has not yet been terminated; and (ii) a Resigning Member whose resignation from the SwapClear Service is not yet effective.

S9. SwapClear Loss Distribution Process

Where, after a Default, the Clearing House determines that the SwapClear Excess Loss resulting from the Default will exceed the amounts to be applied to it under Rule 16(a) to (g), the Clearing House may implement the process (the "**SwapClear Loss Distribution Process**") described in this Rule S9.

- (a) For the purposes of this Rule S9 and for Rule S11, the following definitions will apply:

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

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

"Available Resources" means, in respect of any Loss Distribution Period, the amounts available to the Clearing House for application in meeting any loss suffered or incurred by the Clearing House in accordance with Rule 16(a) to (g) as at the relevant Last Call Prior to Default.

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

Realised Cash Flows in respect of such Cash Gainer in respect of such Loss Distribution Day.

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

"Cash Gainer Base Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(i) of this Rule S9.

"Cash Gainer Payment Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(i) of this Rule S9.

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

"Cash Loser Base Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(ii) of this Rule S9.

"Cash Loser Payment Currency Adjustment to Cash Payment" has the meaning set out in paragraph (b)(ii) of this Rule S9.

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

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

"Cash Payment Type" means each of the Price Alignment Interest, coupon payments, consideration (fee) payments and cash Collateral transferable in respect of variation margin obligations in respect of a Margin Account of a Non-Defaulting SCM.

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

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

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

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

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

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

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

where:

"LUL" means the LCH Uncovered Loss; and

"TCG" means the Total Cash Gains.

"Last Call Prior to Default" means the most recent business day on which the margin obligations of the SCMs were discharged in full.

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

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

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

where:

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

"CLC" means the Cumulative LCH Transfer Cost;

"TAR" means the Total Available Resources; and

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

"Loss Distribution Cap Amount" means, in respect of each Non-Defaulting SCM and any Loss Distribution Period, an amount equal to the higher of (i) £100,000,000; (ii) the product of (a) 100 per cent. and (b) the SwapClear Contribution of such Non-Defaulting SCM as at the last SwapClear Determination Date prior to the date when the Default occurred at the beginning of that Loss Distribution Period; and (iii) any adjusted cap as may be agreed pursuant to paragraph (d) of this Rule S9.

"Loss Distribution Day" means any business day in a Loss Distribution Period on which the Clearing House, in consultation with the SwapClear DMG, prior to calling for: (i) Collateral in respect of margin obligations in accordance with the provisions of the Procedures; and (ii) Required Collateral, on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which a Default occurs with respect to an SCM to but excluding the earlier of: (i) the business day on which (a) the rights and obligations arising out of the Auction Portfolios of the Defaulting SCM are transferred to those SCMs which have successfully bid for such Auction Portfolios in Auctions, or, if any Default occurs with respect to any other SCM prior to the end of a Loss Distribution Period, the rights and obligations arising out of the Auction Portfolios of any subsequent Defaulting SCM are transferred to those SCMs who have successfully bid for such Auction Portfolios in Auctions and (b) all payments required to be made by such SCMs and/or the Clearing House in respect of such Auction(s) have been made in full; or (ii) any Loss Distribution Day in respect of which the Clearing House determines that the SCM Adjustment Amount for any SCM would be equal to or greater than the Loss Distribution Cap Amount for such Loss Distribution Day.

"Margin Account" means each Proprietary Account, Individual Segregated Account, Omnibus Net Segregated Account and each FCM Client Segregated Sub-Account related to the SwapClear Service of an SCM.

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

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

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

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

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

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

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

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

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

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

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

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

(b) Adjustment of Underlying Cash Payments

i Cash Gainer

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

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

where:

Cash Gainer Base Currency Adjustment to Cash Payment (t) = PHG(t) – (CHG(t) * Max (0, 1 - DH(t)) – CAG(t-1))

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

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

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

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

ii **Cash Loser**

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

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

Where

Cash Loser Base Currency Adjustment to Cash Payment(t) = PHG(t) – (CHG(t) – CAG(t-1))

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

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

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

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

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

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

an exchange of Notional Amounts is applicable to any SwapClear Contract on any business day during a Loss Distribution Period, the Clearing House may, following consultation with its risk committee or the SwapClear DMG, as appropriate, make such adjustments as are necessary to the calculation of a Payment Currency Adjustment to Cash Payment to reflect the payment flows arising from such exchange of Notional Amounts, keeping in mind the principle that the calculation of a Payment Currency Adjustment to Cash

Payment is designed to capture all profits and/or losses on positions during the relevant Loss Distribution Period.

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

The Clearing House shall apply all payments it receives in respect of Cash Gainer Payment Currency Adjustment to Cash Payments solely for the purposes of meeting any loss incurred by the Clearing House following, and in relation to, each Default, as contemplated in accordance with Rule 16(a) to (g).

(d) **Adjustment to Loss Distribution Cap Amount**

If, during a Loss Distribution Period, the Clearing House considers that the Cash Gainer Payment Currency Adjustment to Cash Payments applied to a particular Margin Account of an SCM are, or are about to be equal to or greater than the Loss Distribution Cap Amount, the Clearing House may propose an adjustment to such Loss Distribution Cap Amount. If agreed by all Non-Defaulting SCMs, the Loss Distribution Cap Amount as adjusted pursuant to this paragraph (d) shall be applicable for the remainder of the relevant Loss Distribution Period.

(e) **No Rebate**

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

(f) **Application of any Recoveries**

If the SwapClear Loss Distribution Process has been invoked by the Clearing House in accordance with this Rule S9, the Clearing House shall reimburse the SCMs (irrespective of whether they remain SCMs at the time of the recovery) and the Clearing House on a *pro rata* basis by reference to the resources which have been applied pursuant to Rule 16(a) to (g) and including the net amount of any one or more paid by the relevant SCMs:

- i any amounts received from the Defaulting SCM as a result of the Clearing House being a creditor of the Defaulting SCM in respect of the SwapClear Business of such Defaulting SCM in the context of the occurrence of any of the events under Rule 5(i) to (p) in respect of the Defaulting SCM or otherwise, other than in respect of sums due to the Clearing House for its own account; or
- ii any other amounts howsoever obtained or recovered in the course of the Clearing House's operation of the SwapClear Default Management Process or which are otherwise referable to the Defaulting SCM,

in each case net of any related expenses incurred by the Clearing House or other sums owing to the Clearing House by the Defaulting SCM in connection with the SwapClear clearing service. For the avoidance of doubt, nothing in this paragraph (f) shall oblige the Clearing House to pursue any litigation or other action in order to recover the amounts contemplated above and if

another default fund of the Clearing House has also been applied as a result of the SCM's Default, any amounts recovered shall be applied *pari passu* as between the relevant default funds.

- S10. Where, after the Default of one or more SCMs, the Clearing House determines that, notwithstanding the availability of any resources remaining under Rule 16(a) to (g) and the availability of the SwapClear Loss Distribution Process in accordance with the terms of Rule S9, it is clear that the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of those SwapClear Contracts to which it is party with Non-Defaulting SCMs, the Clearing House will by notice in writing (a "**SwapClear Voluntary Payment Notice**"): (i) inform all Non-Defaulting SCMs that it has insufficient resources and that it is likely to invoke Rule S11; and (ii) invite each Non-Defaulting SCM to make a payment of funds (a "**SwapClear Voluntary Payment**"), in accordance with Rule 16(g), to make up for the relevant shortfall.
- (a) SwapClear Voluntary Payments will be made on the following terms:
 - (b) no SCM shall be obliged to make a SwapClear Voluntary Payment;
 - (c) any SwapClear Voluntary Payment will be made by an SCM by the close of business on the business day after receipt of the relevant SwapClear Voluntary Payment Notice;
 - (d) no SwapClear Voluntary Payment may be withdrawn once made; and
 - (e) the Clearing House shall full discretion whether or not to accept a particular SwapClear Voluntary Payment.

Any failure by the Clearing House to deliver a SwapClear Voluntary Payment Notice pursuant to this Rule S10 will not invalidate any action taken by the Clearing House pursuant to Rule S11 nor give rise to any liability whatsoever on the part of the Clearing House.

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

- S11. Where, following the process for inviting SwapClear Voluntary Payments in accordance with Rule S10, the Clearing House makes a determination (an "**Insufficient Resources Determination**") that it is clear that the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of those SwapClear Contracts to which it is party with Non-Defaulting SCMs, the following provisions shall have effect:
- (a) All outstanding SwapClear Contracts shall be closed out as of the clearing day following the date the Insufficient Resources Determination was made and any further obligations to make any payments under or in respect of such SwapClear Contracts shall cease. The closing prices used shall be mid prices calculated by the Clearing House in accordance with the methodology used by it to carry out end of day margin runs in respect of the outstanding SwapClear Contracts. Where such data is not available to the Clearing House, the closing price shall be the last price used by the Clearing House to calculate the variation margin requirement for the position to be closed out.

- (b) On the basis of the close out values established for each outstanding SwapClear Contract, an account shall be taken (as at the time of close out) of what is due in respect of each SCM, from that SCM to the Clearing House and from the Clearing House to that SCM, as well as all other amounts owing under or in respect of SwapClear Contracts and any other amounts that may be due in respect of the SwapClear Service (including for these purposes, a proportionate share of any amounts owed generally to or from the Clearing House), and the sums due from the SCM shall be set off against the sums due from the Clearing House and only the balance of the account shall be payable. For the avoidance of doubt, amounts in respect of SwapClear Contracts shall include, but not be limited to, returns of cash Collateral held by the Clearing House in respect of the SCM's variation margin obligations and the repayment of any Net Cash Gainer Payment Currency Adjustment to Cash Payments made in the SwapClear Default Period to which the Insufficient Resources Determination relates (and in respect of which S9(e) shall be specifically disapplied), but shall exclude the repayment of any cash Collateral transferred to the Clearing House in respect of the SCM's initial margin obligations or any outstanding SwapClear Contributions.

To the extent that the aggregate of all of the amounts owed to the Clearing House by SCMs plus all of those other resources applicable to the SwapClear Business under Rule 16(a) to (g) that have not been applied towards a SwapClear Excess Loss is less than the aggregate of the amounts owed to SCMs by the Clearing House, each amount owed to SCMs by the Clearing House shall be reduced pro rata the shortfall.

- (c) The Clearing House shall determine any amounts due to each SCM in respect of the repayment of any cash Collateral held by the Clearing House in respect of the SCM's initial margin obligations and outstanding SwapClear Contributions to be repaid. The claim of each such SCM in respect of the foregoing shall be reduced in proportion to an amount by which (i) the value of the assets available to the Clearing House to meet the return obligations referred to in (ii) bears to (ii) the value of what would be due from the Clearing House to the Clearing Members in aggregate in respect of the return of cash Collateral held by the Clearing House in respect of the Clearing Members' initial margin obligations and in respect of outstanding Contributions.
- (d) For each SCM, the amount due to it or due from it as determined pursuant to (b) shall be aggregated with its claim determined pursuant to (c) above and only the net sum shall be payable. Where the result of such calculations is that an SCM owes an amount to the Clearing House, that SCM shall pay that amount to the Clearing House immediately. Where the result of such calculations is that an SCM is owed an amount by the Clearing House, the Clearing House shall pay that amount to the SCM immediately, subject to (f) below.
- (e) The payment of such amount to an SCM, pursuant to (d) above subject to any re-calculations performed pursuant to (f) below, shall constitute the full and final payment in respect of the SwapClear Service and such SCM shall not be permitted to make any further claims on the Clearing House in respect of amounts relating to the SwapClear Service nor shall it be permitted to notify the Clearing House of a Termination Date pursuant to Regulation 39A for a failure to pay any amounts in relation to the SwapClear Service.

- (f) The Clearing House may make the payments due under (d) above in one or more instalments to the SCMs in proportion to the value of their claims on the Clearing House under (b) above if some but not all of the amounts due under (d) or Rule 16(a) to 16(g) above have not yet been received. The Clearing House shall take reasonable steps to recover such amounts and may deduct therefrom reasonable administration costs for such recovery. To the extent that the Clearing House determines that any such amounts will not in fact be recoverable, it shall re-determine the amounts due to SCMs in accordance with this Rule S11.
- (g) This Rule S11 shall not be applied in the event that a Termination Date has been specified in relation to the Clearing House in accordance with Regulation 39A.
- (h) Nothing in the foregoing shall override the obligation of the Clearing House to return non-cash Collateral transferred to it in respect of initial margin pursuant to the Regulations and Procedures.

S12. Ballot Arrangements

Notwithstanding anything to the contrary in clauses 9.4 and 9.5 of the Clearing Membership Agreement, no proposal for any of the amendments set out in paragraphs (i), (ii) and (iii) below (each a "**SwapClear Amendment**") shall be capable of coming into effect unless first approved in a ballot of SCMs:

- i any amendment to the value of the SwapClear Fund Floor and/or the value of the SwapClear Fund Cap, in each case as provided for in paragraph (b) of Rule S2 or as subsequently approved in a ballot under this Rule S12;
 - ii any amendment providing for a change in the nature of the liabilities for which an SCM's indemnity is given by virtue of paragraph (c) of Rule 28; and
 - iii any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the SCMs but not in the commitments of any other Clearing Members,
- (a) For the purposes of a ballot conducted pursuant to this Rule S12, the provisions of clauses 9.4, 9.6 and 9.7 of the Clearing Membership Agreement shall apply with the following amendments:
- i the words "major amendment to the Default Fund Rules" in the first line of clause 9.4 of the Clearing Membership Agreement shall be replaced with the words "SwapClear Amendment";
 - ii all references to "Clearing Members" shall be replaced with references to "SCMs";
 - iii in paragraph (c) of clause 9.4 of the Clearing Membership Agreement, the reference to "Contributions" shall be replaced with a reference to "SwapClear Contributions" and the reference to "Quarter Day" shall be replaced with a reference to "SwapClear Determination Date";

- iv references to "Fund Amount" in clauses 9.6 and 9.7 of the Clearing Membership Agreement shall be replaced with references to "SwapClear Fund Amount";
 - v the reference to "clause 9.4" in clause 9.6 of the Clearing Membership Agreement shall be replaced with a reference to "Rule S12 of the SwapClear Default Fund Supplement to the Default Fund Rules"; and
 - vi the references to "Contribution" in clauses 9.6 and 9.7 of the Clearing Membership Agreement shall be replaced with references to "SwapClear Contribution".
- (b) Only General Clearing Members shall be entitled to vote in a ballot conducted under clauses 9.4 and 9.5 of the Clearing Membership Agreement in relation to an amendment which affects exclusively any one or combination of: (i) the EquityClear Fund Amount; (ii) the Exchange Fund Amount; (iii) the nature of the liabilities for which a General Clearing Member's indemnity is given by virtue of paragraph (b) of Rule 28; or (iv) any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the General Clearing Members but not in the commitments of any other Clearing Members. As a result, for the purposes of a ballot conducted under clauses 9.4 and 9.5 of the Clearing Membership Agreement other than a Cross-Service Ballot, references to "Clearing Members" shall not include SCMs who are not also General Clearing Members and SwapClear Contributions shall not count as "Contributions".

For the purposes of this paragraph (c) of this Rule S12, a "Cross-Service Ballot" shall mean: (i) a ballot in relation to an amendment which represents a significant change in the commitments of all of the Clearing Members of the Clearing House or of a significant section of such Clearing Members of the Clearing House who are so categorised together, irrespective of and independently from, the Services which they clear; and, as such (ii) a ballot which falls within paragraph (c) of clause 9.5 of the Clearing Membership Agreement (because, in the opinion of the Board of Directors of the Clearing House, it is an amendment which "would represent a significant change in the commitments of... a significant section of the Clearing Members") but does not fall within paragraph (a)(iii) of Rule F12, paragraph (a)(iii) of this Rule S12 and/or paragraph (a)(ii) of Rule R12 (because the relevant section of the Clearing Members is not restricted to Clearing Members acting in the capacity of Clearing Members in ForexClear, SwapClear and/or RepoClear).

RepoClear Default Fund Supplement

- R.1 On each business day, the Clearing House will determine the "**Combined Loss Value**" in respect of each of the 20 preceding business days. The Combined Loss Value in respect of a particular day will be the sum of the STLIEOMs for the RCMs which have the largest and the second largest STLIEOM on that day. For this purpose, the "**STLIEOM**" means, in respect of each RCM and any day, the stress-tested loss in excess of the value of the Collateral transferred by that RCM in respect of its initial margin requirement (determined for a given scenario determined by the Clearing House) which could be incurred by the Clearing House in respect of that RCM's RepoClear Business if that RCM became a Defaulting RCM on that day (but taking into account any Collateral in respect of additional margin called pursuant to R2(k) in respect of such RCM).
- R.2 Each RCM's RepoClear Contribution (other than a RepoClear Unfunded Contribution) shall be determined by the Clearing House in accordance with the following provisions:
- (a) determinations will be made by the Clearing House initially on a date determined by the Clearing House and thereafter on the date that an RCM joins the RepoClear Service, and at close of business on the first business day of each subsequent month (each a "**RepoClear Determination Date**") provided, however, that, following a Default, any such determinations and any such RepoClear Determination Date which might otherwise have occurred under this Rule R.2 shall be suspended for the duration of the period (the "**RepoClear 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 RepoClear 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 to the end of the period referred to in (i) above (or such period as has already been extended pursuant to this subparagraph (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 RepoClear 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) the "**RepoClear Segregated Fund Amount**" shall be denominated in euro, and, for a given RepoClear Determination Date, shall be the largest of the 20 Combined Loss Values determined under Rule R.1 plus 10%. The RepoClear Segregated Fund Amount shall not be less than EUR 500 million or such greater amount as shall be determined by the LCH Risk Committee (the "**RepoClear Fund Floor**") and shall not be more than EUR 620 million or such greater amount as shall be determined by the LCH Risk Committee from time to time on the basis of the stress tests applied to current positions of RCMs (the "**RepoClear Fund Current Maximum Amount**") except that the LCH Risk Committee may not increase the RepoClear Segregated Fund Amount above EUR 1,500 million (the "**RepoClear Fund Cap**") without a ballot of RCMs pursuant to Rule R12;

- (c) the RCM's "**RepoClear Margin Weight**" shall be calculated by dividing the average daily initial margin requirement (as calculated under the Procedures or other arrangements applicable) which has applied to the RCM during the 20 business day period preceding the relevant RepoClear Determination Date in respect of all Fixed Income Contracts to which such RCM is a party by the total of such average daily requirements applied to all Non-Defaulting RCMs;
- (d) the RCM's "**Preliminary RepoClear Contribution**" shall be calculated by multiplying the RepoClear Segregated Fund Amount by the RCM's RepoClear Margin Weight;
- (e) if the Clearing Member's Preliminary RepoClear Contribution is below the Minimum RepoClear Contribution for the time being, the Clearing Member's RepoClear Contribution shall be the Minimum RepoClear Contribution;
- (f) the "**RepoClear Actual Total**" shall be calculated by adding together (i) the amount which is the product of the Minimum RepoClear Contribution and the number of Minimum RepoClear Contribution Members; and (ii) the aggregate Preliminary RepoClear Contributions of those RCMs which are not Minimum RepoClear Contribution Members;
- (g) where the RepoClear Actual Total is greater than the RepoClear Fund Current Maximum Amount, the "**RepoClear Excess**" shall be the arithmetical difference between the RepoClear Actual Total and the RepoClear Fund Current Maximum Amount;
- (h) where the RepoClear Actual Total is less than the RepoClear Fund Floor, the "**RepoClear Shortfall**" shall be the arithmetical difference between the RepoClear Fund Floor and the RepoClear Actual Total;
- (i) for each RCM other than a Minimum RepoClear Contribution Member: (i) the RCM's "**RepoClear Discount**" (if any) shall be such RCM's *pro rata* share of the RepoClear Excess calculated as the proportion of such RCM's Preliminary RepoClear Contribution relative to the aggregate Preliminary RepoClear Contributions of all RCMs other than Minimum RepoClear Contribution Members; and (ii) the RCM's "**RepoClear Increase**" (if any) shall be such RCM's *pro rata* share of the RepoClear Shortfall calculated as the proportion of such RCM's Preliminary RepoClear Contribution relative to the aggregate Preliminary RepoClear Contributions of all RCMs other than Minimum RepoClear Contribution Members;
- (j) for each RCM other than a Minimum RepoClear Contribution Member, the RCM's RepoClear Contribution shall be the Preliminary RepoClear Contribution (i) less any RepoClear Discount applicable to the RCM or (ii) plus any RepoClear Increase applicable to the RCM; provided that if the application of any RepoClear Discount would result in a RepoClear Contribution less than the Minimum RepoClear Contribution, such RCM shall pay the Minimum RepoClear Contribution notwithstanding that the arithmetical sum of RepoClear Contributions paid by all RCMs may thereby exceed the RepoClear Fund Current Maximum Amount; and
- (k) notwithstanding paragraphs (a) to (j), if any RCM has a STLIEOM which is equal to or greater than 45% of the RepoClear Segregated Fund Amount, the Clearing House may require such RCM to transfer an amount of Collateral in respect of additional margin sufficient to reduce STLIEOM for that RCM to

less than 45% of the RepoClear Segregated Fund Amount and where such RCMs STLIEOM would be less than 45% excluding any such Collateral in respect of additional margin that has been called, then Collateral shall be returned.

R.3 For the purposes of the calculations under Rules R.1 and R2:

- (a) references to "RepoClear Clearing Members" or "RCMs" do not include references to Defaulting RCMs (apart from any Defaulting RCM in respect of which the Clearing House permits the application of Rule R.2) or persons which were formerly RCMs but are not RCMs at the RepoClear Determination Date at which the relevant determination is made;
- (b) no account shall be taken, in calculating the initial margin requirement or RepoClear Margin Weight under Rule R.2 of any offsets in the initial margin required for Fixed Income Contracts from an RCM, which may otherwise be permissible under the Procedures or other arrangements applicable;
- (c) provided that the RCM is not a Defaulting RCM, the amount of its RepoClear Contribution shall be calculated in accordance with and subject to Rule R2. The provisions of Rule R.2 and this Rule do not apply to a Defaulting RCM, unless the Clearing House so permits in any particular case; and
- (d) notwithstanding Rule 33, if a RCM notifies the Clearing House on the RepoClear Default Management Process Completion Date that it wishes to resign from the RepoClear Service, such RCM, assuming all other requirements for termination of membership have been satisfied by the next following RepoClear Determination Date, shall cease to be a RCM for the purpose of Rule R2 on and from the date upon which its RepoClear Contribution is repaid to it by the Clearing House and such payment will be made by the Clearing House following the subsequent RepoClear Determination Date in accordance with the Procedures.

R.4 Without prejudice to any other requirements which the Clearing House may impose, the amount of the RepoClear Contribution of a New Member on becoming a New Member shall be the sum of (a) the Minimum RepoClear Contribution and (b) any supplementary sum determined by the Clearing House in its discretion and notified to the New Member. 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.

R.5 Upon determination of the amount of a RepoClear Contribution in accordance with Rule R.2:

- (a) if the amount of the RepoClear Contribution of an RCM immediately before close of business on the relevant RepoClear Determination Date exceeds the amount of the RCM's RepoClear Contribution as determined under Rule R.2 as at close of business on that day, the excess shall be paid by the Clearing House to such RCM in accordance with the Procedures;
- (b) if the amount of the RepoClear Contribution of an RCM immediately before close of business on the relevant RepoClear Determination Date is the same as the amount of the RCM's RepoClear Contribution as so determined, no sum shall then be payable by or to such RCM in respect of its Contribution; and

- (c) if the amount of the RepoClear Contribution of an RCM immediately before close of business on the relevant RepoClear Determination Date is less than the amount of the RCM's RepoClear Contribution as so determined, the shortfall shall be paid by such RCM to the Clearing House in accordance with the Procedures.

RepoClear Contributions shall at all times be denominated in EUR. However, a RCM may pay its RepoClear Contribution in either EUR or GBP in accordance with the Procedures.

The provisions of this Rule do not apply to a Defaulting RCM, unless the Clearing House so permits in any particular case.

- R.6 On any day interest shall accrue on the amount of each RepoClear Contribution then held by the Clearing House, to the extent that it has not been applied under Rule 26 or Rule 28, at such rate and in such manner as provided by the Procedures, provided that the rate of interest for any particular day shall be based on a market recognised benchmark rate plus or minus a spread and published on the website of the Clearing House. Interest shall be payable in arrear and shall be paid on the date or dates specified by the Procedures. In these Default Fund Rules any interest which has accrued under this Rule shall not be regarded as part of the RepoClear Contribution.
- R.7 Where, after a Default, the Clearing House has applied part or all of a RepoClear Contribution under Rule 26 or Rule 28, the RepoClear Segregated Fund Amount shall be reduced forthwith by the aggregate amount of the RepoClear Contributions or parts of RepoClear Contributions so applied and the amount of the RepoClear Contribution that each RCM must maintain with the Clearing House shall be reduced by the amount of its RepoClear Contribution which has been applied pursuant to Rule 28, in each case until the next RepoClear Determination Date. Unless and until the Clearing House has repaid a defaulter's RepoClear Contribution (or remaining part thereof, as applicable), the RepoClear Segregated Fund Amount shall be treated as having been reduced by the amount of the defaulter's RepoClear Contribution (if any), regardless of whether the Clearing House has applied part or all of that RepoClear Contribution under Rule 26.
- R.8 Where, after a Default, the Clearing House determines that (i) by reason of a reduction in accordance with Rule R.7, the value of the RepoClear Segregated Fund Amount has been reduced by at least 25%; or (ii) by the time of the RepoClear Default Management Process Completion Date in relation to the relevant Default the value of the RepoClear Segregated Fund Amount will be reduced by at least 25%, the Clearing House may, by notice in writing (the "**RepoClear Unfunded Contribution Notice**"), require each Non-Defaulting RCM to deposit and maintain an amount (each a "**RepoClear Unfunded Contribution**") in accordance with the following provisions:
- (a) RepoClear Unfunded Contributions will only be payable in circumstances where the relevant RepoClear Unfunded Contribution Notice is delivered by the Clearing House to RCMs prior to the RepoClear Default Management Process Completion Date in relation to the relevant Default;
- (b) the value of the RepoClear Unfunded Contribution payable by each individual RCM shall be the product of (i) the percentage by which the value of the RepoClear Segregated Fund Amount has been reduced and (ii) the value of the RepoClear Contribution of such RCM as at the last RepoClear Determination Date prior to the date when the relevant Default occurred;

- (c) following the payment of a RepoClear Unfunded Contribution in accordance with paragraphs R8(a) and (b), the Clearing House may, by the delivery of one or more further RepoClear Unfunded Contribution Notices, require each Non-Defaulting RCM to pay one or more further RepoClear Unfunded Contributions in respect of the same Default, provided that the total value of the RepoClear Unfunded Contributions payable by an individual RCM in respect of a particular Default (determined in accordance with paragraph (b) above) may not exceed the value of the RepoClear Contribution of such RCM as at the last RepoClear Determination Date prior to the date when the relevant Default occurred; and
- (d) following a Default in respect of which RepoClear Unfunded Contributions were paid (the "**First Default**"), the Clearing House may require the payment of further RepoClear Unfunded Contributions in respect of subsequent Defaults, (which, for the avoidance of doubt, can never be a First Default), provided that RepoClear Unfunded Contributions will not be payable in respect of any more than three Defaults in any six month period (commencing on the date of delivery of the first RepoClear Unfunded Contribution Notice in respect of the First Default).

RCMs will be required to deposit the full amount of their RepoClear Unfunded Contributions (without exercising any rights of set-off or counterclaim) with the Clearing House on the business day following receipt of a RepoClear Unfunded Contribution Notice.

For the avoidance of doubt, references to "RCMs" for the purposes of this Rule R.8 include any RCM (other than a Defaulting RCM) who is: (i) a Retiring Member but whose status as a Clearing Member has not yet been terminated; and (ii) a Resigning Member whose resignation from the RepoClear Service is not yet effective.

R.9 RepoClear Loss Distribution Process

Where, after a Default, the Clearing House determines that the RepoClear Excess Loss resulting from the Default will exceed the amounts to be applied to it under Rule 16(a) to (g), the Clearing House may implement the process (the "**RepoClear Loss Distribution Process**") described in this Rule R.9.

- (a) For the purposes of this RepoClear Default Fund Supplement, the following definitions will apply:

"Additional Margin" means any Collateral other than Initial Margin, Variation Margin and Delivery Margin which is called in order to mitigate default risk across the life of a Contract.

"Available Resources" means, in respect of any Loss Distribution Period or Service Closure Period, the aggregated amount which is available to be paid by the Clearing House for application in meeting any loss suffered or incurred by the Clearing House in accordance with Rule 16(a) to (g) as at and including the relevant Last Call Prior to Default.

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

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

"Cash Payment Currency" means, in respect of each RCM, the Currency in which it paid its RepoClear Contribution.

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

"Final Determination Date" means the business day subsequent to an Insufficient Resources Determination Date when a Shortfall Allocation (as defined in R11(c)(i)) is to be determined;

"Insufficient Resources Determination Date" means the day on which an Insufficient Resources Determination (as defined in R11) is made by the Clearing House;

"Last Call Prior to Default" means the most recent business day on which the margin obligations of the RCMs were discharged in full.

"LCH Transfer Cost" means any cost (converted, where applicable, into EUR at a Rate of Exchange determined by the Clearing House in its sole discretion) to the Clearing House arising out of transferring the rights and obligations arising out of the Fixed Income Contracts of a Defaulting RCM to any other RCM or third parties

"LCH Final Uncovered Loss" means the aggregate of LCH Uncovered Losses arising on each day in a Service Closure Period.

"LCH Uncovered Loss" means, in respect of the Clearing House, as determined on any business day in any Loss Distribution Period or Service Closure Period, the amount greater than zero calculated in accordance with the following formula:

$$(TRCMCP + CLC) - (TAR + TLD)$$

where:

"TRCMCP" means the TRCM Cash Payment;

"CLC" means the Cumulative LCH Transfer Cost;

"TAR" means the Total Available Resources; and

"TLD" means Total Loss Distribution; and

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

"Loss Distribution Cap Amount" means, in respect of each Non-Defaulting RCM and any Loss Distribution Period, an amount equal to the product of (i) 100 per cent. and (ii) the RepoClear Contribution of such Non-Defaulting RCM as at the last RepoClear Determination Date prior to the date when the Default occurred at the beginning of that Loss Distribution Period;

"Loss Distribution Day" means any business day in a Loss Distribution Period on which the Clearing House, prior to calling for: (i) Collateral in respect of margin obligations in accordance with the provisions of the Procedures; and (ii) Required Collateral, on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which a Default occurs with respect to an RCM to the business day on which all Loss Distribution Charges in respect of such Default have been paid in full.

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

"RCM Cash Payment" means, in respect of any Cash Payment (converted, where applicable into EUR at a Rate of Exchange determined by the Clearing House in its sole discretion) and any business day (a) the amount of any such Cash Payment which would be paid by the Clearing House to a Non-Defaulting RCM in respect of the Fixed Income Contracts of a Defaulting RCM on such business day (expressed as a positive number) excluding any cash payments made by the Clearing House to such Non-Defaulting RCM in respect (i) of delivery versus payment transfers and (ii) all transfers of Collateral other than in respect Variation Margin; and (b) the amount of any Cash Payments made by the relevant Non-Defaulting RCM to the Clearing House in respect of the Fixed Income Contracts of a Defaulting RCM on such business day (expressed as a negative number) excluding any cash payments made by the relevant Non-Defaulting RCM to the Clearing House in respect (i) of delivery versus payment transfers and (ii) transfer of Collateral other than in respect of Variation Margin.

"Service Closure Period" means the period from and including an Insufficient Resources Determination Date to, but including, a Final Determination Date;

"Total Available Resources" means, during a Loss Distribution Period or Service Closure Period the sum of (i) the Available Resources and (ii) any Unfunded Contributions.

"Total Loss Distribution" means, as determined on the day an LCH Uncovered Loss is being determined, the sum of any Loss Distribution Charges paid by Non-Defaulting RCMs from but the excluding relevant Last Call Prior to Default to and excluding such day.

"TRCM Cash Payment" means the total of all cumulative RCM Cash Payments for each business day from but excluding the relevant Last Call Prior to Default up to and including the business day upon which LCH Uncovered Losses are being determined.

(b) Loss Distribution Charges

On each Loss Distribution Day, each Non-Defaulting RCM shall be required to pay to the Clearing House a **"Loss Distribution Charge"** which is equal to the product of (x) the LCH Uncovered Loss in respect of that Loss Distribution Day and (y) the proportion which that Non-Defaulting RCM's RepoClear Contribution bears to the aggregate of the RepoClear Contributions of all

Non-Defaulting RCMs, *provided that*, the aggregate of all such Loss Distribution Charges shall not be greater than the Loss Distribution Cap Amount in respect of that Non-Defaulting RCM.

Any Loss Distribution Charge shall be paid by the RCM to the Clearing House in accordance with the Procedures.

(c) Application of Loss Distribution Charges to Cash Payment

The Clearing House shall apply all payments it receives in respect of Loss Distribution Charges to Cash Payments solely for the purposes of meeting any loss incurred by the Clearing House following, and in relation to, each Default, as contemplated in accordance with Rule 16(a) to (g).

(d) No Rebate

The payment to the Clearing House by any RCM of any Loss Distribution Charge shall be final and shall not give rise to any obligation of the Clearing House to repay any such amount or to pay any interest thereon.

(e) Application of any Recoveries

If the RepoClear Loss Distribution Process has been invoked by the Clearing House in accordance with this Rule R.9, the Clearing House shall reimburse the RCMs (irrespective of whether they remain RCMs at the time of the recovery) and the Clearing House on a *pro rata* basis by reference to the resources which have been applied pursuant to Rule 16(a) to (g) (including any RepoClear Unfunded Contributions) and including the net amount of any one or more paid by the relevant RCMs:

- i any amounts received from the Defaulting RCM as a result of the Clearing House being a creditor of the Defaulting RCM in respect of the RepoClear Business of such Defaulting RCM in the context of the occurrence of any of the events under Rule 5(i) to (p) in respect of the Defaulting RCM or otherwise, other than in respect of sums due to the Clearing House for its own account; or
- ii any other amounts howsoever obtained or recovered in the course of the Clearing House's operation of the RepoClear Default Management Process or which are otherwise referable to the Defaulting RCM,

in each case net of any related expenses incurred by the Clearing House or other sums owing to the Clearing House by the Defaulting RCM in connection with the RepoClear clearing service. For the avoidance of doubt, nothing in this paragraph (f) shall oblige the Clearing House to pursue any litigation or other action in order to recover the amounts contemplated above and if another default fund of the Clearing House has also been applied as a result of the RCM's Default, any amounts recovered shall be applied *pari passu* as between the relevant default funds.

- R.10 Where, after the Default of one or more RCMs, the Clearing House determines that, notwithstanding the availability of any resources remaining under Rule 16(a) to (g) and the availability of the RepoClear Loss Distribution Process in accordance with the terms of Rule R.9, it is clear that the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of those Fixed

Income Contracts to which it is party with Non-Defaulting RCMs, the Clearing House shall conduct a ballot of Non-Defaulting RCMs to determine whether or not to repeat the RepoClear Loss Distribution Process in Rule R.9. The quorum for such a ballot shall be 95% of all Non-Defaulting RCMs, and any such ballot shall only be carried if it all those RCMs who vote have voted in favour of repeating the procedures in Rule R.9. For the avoidance of doubt, where the Loss Distribution Process in Rule R.9 is repeated following a vote in favour of such under this Rule R.10, no Loss Distribution Charges paid by Non-Defaulting RCMs under previous applications of the Loss Distribution Process shall be included in determining whether the Loss Distribution Cap Amount for such current application of the RepoClear Loss Distribution Process has been reached.

R.11 Where, following the conclusion of the Loss Distribution Process (including any repeat of the RepoClear Loss Distribution Process following a ballot pursuant to Rule R.10), the Clearing House makes a determination (an “**Insufficient Resources Determination**”) that the Clearing House would not in future have sufficient resources to meet its contractual obligations arising in respect of those Fixed Income Contracts to which it is party with Non-Defaulting RCMs were this Rule R.11 not to apply, the following provisions shall have effect:

- (a) All outstanding Fixed Income Contracts shall be closed out as of the clearing day following the date the Insufficient Resources Determination was made.
- (b) On the basis of the close out values established for each outstanding Fixed Income Contract by the Clearing House acting in a commercially reasonable manner, an account shall be taken (as at the time of close out) of what is due in respect of each RCM, from that RCM to the Clearing House and from the Clearing House to that RCM in respect of Fixed Income Contracts and any other amounts that may be due in respect of the RepoClear Service (including for these purposes, a proportionate share of any amounts owed generally to or from the Clearing House), and the sums due from the RCM shall be set off against the sums due from the Clearing House and, subject to paragraph (c), below, only the balance of the account shall be payable. For the avoidance of doubt, amounts in respect of Fixed Income Contracts shall include, but not be limited to, returns of cash Collateral held by the Clearing House in respect of the RCM's variation margin obligations (but shall exclude the repayment of any cash Collateral held by the Clearing House in respect of the RCM's initial margin obligations or additional margin) and amounts due in respect of the RepoClear Service shall include, but not be limited to, any Loss Distribution Charges payable by that RCM pursuant to Rule R.9 (but shall exclude the repayment of any outstanding RepoClear Contributions).
- (c) To the extent that (x) the aggregate of all of the net amounts owed to the Clearing House by RCMs pursuant to paragraph (b), above, plus all of those other resources applicable to the RepoClear Clearing Service under Rule 16(a) to (g) (excluding for these purposes Collateral held by the Clearing House in respect of RCMs' initial margin obligations and additional margin) that have not been applied towards a RepoClear Excess Loss (the “RepoClear Final Resources”) are less than (y) the LCH Final Uncovered Losses, the amount by which (y) exceeds (x) shall be the “LCH Closure Shortfall”:
 - i the LCH Closure Shortfall (as defined above) shall be allocated between the RCMs based upon the proportion that (i) the value of each RCM's RepoClear Additional Payments Cap bears to (ii) the

- aggregate of the RepoClear Additional Payments Caps of all RCMs (the amount allocated to each such RCM being the "**Shortfall Allocation**" in respect of that RCM); and each RCM shall (subject to sub-paragraph (ii) and (iii) below) make a new cash payment to the Clearing House in respect of its Shortfall Allocation, which shall be the lower of its Shortfall Allocation and the RepoClear Additional Payments Cap in respect of such RCM (a "**Service Closure Payment**");
- ii the Service Closure Payment owed by an RCM in sub-paragraph (c)(i) above shall be set off against the sums owed by the Clearing House in sub-paragraph (b) above to that RCM and only the balance (subject to sub-paragraph (iii) below) shall be payable in cash by either the RCM or the Clearing House, as applicable (the "**Final Net Payment**"); and
 - iii the Clearing House shall determine any amounts due to each RCM in respect of the repayment of cash Collateral held by the Clearing House in respect of the RCM's initial margin obligations and additional margin. The Clearing House and the RCMs hereby agree that cash Collateral held by the Clearing House in respect of an RCM's initial margin obligations and in respect of additional margin transferred by that RCM shall operationally net in the PPS against the cash payment of the Final Net Payment in accordance with the processes of the PPS.
- (d) Where an RCM owes an amount to the Clearing House under Rule R11(b) or if there is an LCH Closure Shortfall under Rule R11(c)(iii), that RCM shall pay that amount to the Clearing House immediately. Where an RCM is owed an amount by the Clearing House under Rule R11(b) or if there is an LCH Closure Shortfall under Rule R11(c)(ii) and/or (iii), the Clearing House shall pay that amount to the RCM immediately, subject to (e) below.
- (e) The Clearing House may make the payments due under paragraph (d) above in one or more instalments to the RCMs in proportion to the value of their claims on the Clearing House under paragraphs (b) or (c) above if some but not all of the amounts due under paragraph (d) or Rule 16(a) to 16(h) above have not yet been received. No interest will be payable by the Clearing House on any instalments. The Clearing House may take reasonable steps to recover such amounts and may deduct therefrom reasonable administration costs for such recovery. To the extent that the Clearing House determines that any such amounts will not in fact be recoverable, it shall re-determine the amounts due to RCMs in accordance with this Rule R11. To the extent that the Clearing House ultimately recovers amounts in excess of the LCH Closure Shortfall it shall return such amounts to the relevant RCMs (other than a Defaulting RCM) and to the extent that such amounts have been received as Service Closure Payments, it shall return such amounts to the RCMs (other than a Defaulting RCM) in proportion to their Shortfall Allocations.
- (f) This Rule R11 shall not be applied in the event that a Termination Date has been specified in relation to the Clearing House in accordance with Regulation 39A.

- (g) Nothing in the foregoing shall override the obligation of the Clearing House to return non-cash Collateral transferred to it in respect of initial margin pursuant to the Regulations and Procedures.

R.12 Ballot Arrangements

- (a) Notwithstanding anything to the contrary in clauses 9.4 and 9.5 of the Clearing Membership Agreement, no proposal for any of the amendments set out in paragraphs (i) or (ii) below (each a "**RepoClear Amendment**") shall be capable of coming into effect unless first approved in a ballot of RCMs:
 - i any amendment providing for a change in the nature of the liabilities for which an RCM's indemnity is given by virtue of paragraph (d) of Rule 28;
 - ii any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the RCMs but not in the commitments of any other Clearing Members, and
 - iii. any increase in the RepoClear Fund Cap
- (b) For the purposes of a ballot conducted pursuant to this Rule R12, the provisions of clauses 9.4, 9.6 and 9.7 of the Clearing Membership Agreement shall apply with the following amendments:
 - i the words "major amendment to the Default Fund Rules" in the first line of clause 9.4 of the Clearing Membership Agreement shall be replaced with the words "RepoClear Amendment";
 - ii all references to "Clearing Members" shall be replaced with references to "RCMs";
 - iii in paragraph (c) of clause 9.4 of the Clearing Membership Agreement, the reference to "Contributions" shall be replaced with a reference to "RepoClear Contributions" and the reference to "Quarter Day" shall be replaced with a reference to "RepoClear Determination Date";
 - iv references to "Fund Amount" in clauses 9.6 and 9.7 of the Clearing Membership Agreement shall be replaced with references to "RepoClear Fund Amount";
 - v the reference to "clause 9.4" in clause 9.6 of the Clearing Membership Agreement shall be replaced with a reference to "Rule R12 of the RepoClear Default Fund Supplement to the Default Fund Rules"; and
 - vi the references to "Contribution" in clauses 9.6 and 9.7 of the Clearing Membership Agreement shall be replaced with references to "RepoClear Contribution".
- (c) Only General Clearing Members shall be entitled to vote in a ballot conducted under clauses 9.4 and 9.5 of the Clearing Membership Agreement in relation to an amendment which affects exclusively any one or combination of: (i) the EquityClear Fund Amount; (ii) the Exchange Fund Amount; (iii) the nature of the liabilities for which a General Clearing Member's indemnity is given by

virtue of paragraph (b) of Rule 28; or (iv) any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the General Clearing Members but not in the commitments of any other Clearing Members. As a result, for the purposes of a ballot conducted under clauses 9.4 and 9.5 of the Clearing Membership Agreement other than a Cross-Service Ballot, references to "Clearing Members" shall not include RCMs who are not also General Clearing Members and RepoClear Contributions shall not count as "Contributions".

For the purposes of this paragraph (c) of this Rule R12, a "Cross-Service Ballot" shall mean: (i) a ballot in relation to an amendment which represents a significant change in the commitments of all of the Clearing Members of the Clearing House or of a significant section of such Clearing Members of the Clearing House who are so categorised together, irrespective of and independently from, the Services which they clear; and, as such (ii) a ballot which falls within paragraph (c) of clause 9.5 of the Clearing Membership Agreement (because, in the opinion of the Board of Directors of the Clearing House, it is an amendment which "would represent a significant change in the commitments of... a significant section of the Clearing Members") but does not fall within paragraph (a)(iii) of Rule F12, paragraph (a)(iii) of Rule S12 and/or paragraph (a)(ii) of this Rule R12 (because the relevant section of the Clearing Members is not restricted to Clearing Members acting in the capacity of Clearing Members in ForexClear, SwapClear and/or RepoClear).

Commodities Default Fund Supplement

C1. In this Supplement, subject to any contrary indication or where the context otherwise requires, references to:

the "**Business**" means the Commodities Business of a Member

a "**Contract**" means a Commodities Contract, a contract cleared pursuant to a Service and such other commodities or commodity-related contract as the Clearing House may from time to time specify by notice to the Members

a "**Contribution**" means a Commodities Contribution

the "**Default Fund**" means the fund established by this Commodities Default Fund Supplement

a "**Determination Date**" means a Commodities Determination Date

the "**Excess Loss**" means the Commodities Excess Loss

the "**Fund Amount**" means the Commodities Fund Amount

a "**Member**" means a Commodities Clearing Member and a Clearing Member approved to clear a Specified Market

a "**Minimum Contribution**" means USD 750,000

a "**Non-Defaulting Clearing Member**" means a Member that is not a defaulter under Rule 4 of the Default Rules

"**Service**" means the commodities and commodity-related services provided by the Clearing House pursuant to its rules governing the clearing of the Specified Markets and includes the Commodities Service

"**Specified Markets**" means Nodal, LME and any other markets from time to time specified by the Clearing House, and includes the market in Contracts registered with the Clearing House pursuant to the LCH EnClear OTC service

and calculations of "**Combined Loss Value**", "**End of Day Margin Weight**", "**Peak Intra-Day Margin Weight**", "**STLIEOM**" and "**Weight Factor**" are carried out in accordance with this Supplement only.

Capitalised terms not otherwise defined in this Supplement shall have the meanings assigned to them in the General Regulations, Rule 15 of the Default Fund Rules or Rule 15A of the Default Fund Rules, as applicable.

C2. Fund Amount

(a) The Default Fund is denominated in USD, and all amounts referable to it shall be denominated, calculated, called and payable in USD.

(b) On each business day, the Clearing House will determine the "Combined Loss Value" in respect of each of the three preceding calendar months. The Combined Loss Value in respect of a particular day will be the sum of the STLIEOMs for the Members which have the largest and the second largest STLIEOM on that day. For this purpose, the "STLIEOM" means, in respect of each Member and in respect of any day, the stress-tested loss in excess of

initial margin (determined for a given scenario determined by the Clearing House) which could be incurred by the Clearing House in respect of that Member's Business if that Member became a defaulter on that day.

- (c) The Fund Amount shall be determined by the Clearing House on the first business day of each calendar month (the "Determination Date") in accordance with this Rule.
- i The Fund Amount is, for a given Determination Date, the largest of the Combined Loss Values as determined during the three calendar month period under Rule C2(b), plus 10%, subject to the following provisions of this Rule.
 - ii On any Determination Date, if the Fund Amount as determined under Rule C2(c)(i) would be lower than three times the Minimum Contribution, the Fund Amount will be deemed to be three times the Minimum Contribution (the "Fund Floor").
 - iii On any Determination Date: (a) if the Fund Amount as determined would exceed USD 1,500,000,000, the Fund Amount will be deemed to be USD 1,500,000,000 unless the Risk Committee of the Clearing House has resolved that an increase in the Fund Amount is warranted, in which case the Fund Amount shall be as determined by the Risk Committee; (b) if the Fund Amount as determined would exceed USD 2,500,000,000, the Fund Amount will be deemed to be USD 2,500,000,000, notwithstanding any determination by the Risk Committee, unless an increase has been approved by ballot in accordance with Rule C11.
 - iv In the case of a Default in relation to which the Clearing House does not apply Contributions under Rule 26 or Rule 28, determinations of the Fund Amount under the methodology of this Rule are suspended from the date of the occurrence of a Default until the completion of the management of such Default. Where other such Defaults have commenced during the period of suspension, the suspension will end at the completion of the management of the last of such Defaults.

In the case of any Default in relation to which the Clearing House applies Contributions under Rule 26 or Rule 28, determinations of the Fund Amount under the methodology of this Rule are suspended from the date of the occurrence of a Default until the expiry of the Cooling Off Period under Rule C7. Where other such Defaults have commenced during the period of suspension, the suspension will end at the expiry of the Cooling Off Period following the Default Management Completion Notice in respect of the last of those Defaults.

C3. Contributions to Fund

- (a) The amount of each Member's Contribution shall be determined by the Clearing House on each Determination Date on the basis of information available as at close of business on the immediately preceding business day and notified to such Member as soon as practicable after such determination in accordance with the Procedures. However, determinations of Contributions under the methodology of this Rule are suspended after the occurrence of a Default in accordance with Rule C2(c)(iv).

- (b) A Member's Contribution shall be determined with reference to business conducted by it on the Specified Markets in Contracts as follows:
- i the Member's "**End of Day** Margin Weight" shall be calculated by dividing the average daily initial margin requirement at the end of each day (as calculated under the Procedures or other arrangements applicable) which has applied to the Member during the Reference Period in respect of all Contracts by the total of such average daily requirements applied to all Members other than defaulters;
 - ii the Member's "Peak Intra-Day Margin Weight" shall be calculated by dividing the average maximum intra-day initial margin requirement arising at any point during each day during the Reference Period (as calculated under the Procedures or other arrangements applicable) which has applied to the Member in respect of all Contracts by the total of such average maximum intra-day requirements applied to all Members other than defaulters;
 - iii the Member's "Weight Factor" shall be calculated by adding one-half of its End of Day Margin Weight to one-half of its Peak Intra-Day Margin Weight,

and the Member's Contribution shall be the amount arrived at by multiplying the Fund Amount by the Member's Weight Factor, provided that (x) if the amount calculated for a particular Member pursuant to the foregoing would, when aggregated with the Contributions of all other Members, produce a Fund Amount that is in excess of that permitted under Rule C2(c)(iii), then such excess amount, as calculated by the Clearing House, shall be iteratively notionally allocated to such Member pro rata to its Contribution as originally calculated and such proportionate excess shall be deducted from the amount originally calculated and the Member's Contribution shall be adjusted accordingly; and provided further that (y) in no case shall a Member's Contribution be less than the Minimum Contribution (notwithstanding that the Fund Amount may, taking into account all Contributions as adjusted in accordance with the provisos to this paragraph, exceed the level specified in Rule C2(c)(iii)).

For the purposes of these calculations:

- iv "**Reference Period**" means the period of three calendar months immediately before the Determination Date;
- v references to "Members" do not include references to defaulters (apart from any defaulter in respect of which the Clearing House permits the application of this Rule) or persons which were formerly Members but are not Members on the date on which the relevant calculation is made;
- vi Contributions shall be rounded upwards, if not already such a multiple, to the next integral multiple of one thousand dollars; and
- vii no account shall be taken, in calculating the initial margin or Margin requirement Weight under this Rule C3(b) of any offsets in the initial margin required for Contracts from a Member which may otherwise be permissible under the Procedures or other arrangements applicable.

- (c) Without prejudice to any other requirements which the Clearing House may impose, the amount of the Contribution of a New Member shall be the sum of:
 - i the Minimum Contribution; and
 - ii any supplementary sum determined by the Clearing House in its discretion and notified to the New Member. 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.
- (d) Except to the extent that one or other of the caps specified in Rule C2(c)(iii) would be exceeded, the Clearing House may recalculate the Contributions due from certain Members on any business day other than one falling between the application of a Contribution and the end of the Cooling Off Period, as set out at Rule C7, in the following circumstances:
 - i if the Combined Loss Value determined under Rule C2(b) on that day deviates by more than 25% upwards or downwards from the Combined Loss Value on which the previous Contribution determination was based, on such business day, the Clearing House shall be entitled to make an adjustment upwards or downwards to the Fund Amount commensurate with the deviation;
 - ii where the Risk Committee considers (for any reason) that a recalculation is warranted between Determination Dates.

C4. Interest on Contributions

On each day interest shall accrue on the amount of each Contribution then held by the Clearing House, to the extent that it has not been applied under Rule 26 or Rule 28, at such rate and in such manner as provided by the Procedures, provided that the rate of interest for any particular day shall be based on a market-recognised benchmark rate plus or minus a spread. Such rate and such spread shall be determined, in light of market conditions at such time, by the Clearing House from time to time and notified by the Clearing House to Members. Interest on Contributions shall be payable in arrear and shall be paid on the date or dates specified by the Procedures. Any interest which has accrued under this Rule shall not be regarded as part of a Contribution.

C5. Payment of Contributions

- (a) Upon determination of the amount of a Contribution on a Determination Date:
 - i if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date exceeds the amount of the Member's Contribution as determined on the Determination Date, the excess shall be paid by the Clearing House to the Member in accordance with the Procedures;
 - ii if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date is the same as the amount of the Member's Contribution as determined on the Determination Date, no sum shall then be payable by or to the Member in respect of its Contribution; and
 - iii if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date is less than the amount of the Member's Contribution as determined on the

Determination Date, the shortfall shall be paid by the Member to the Clearing House in accordance with the Procedures.

- (b) The provisions of this Rule do not apply to a Member which is a defaulter, unless the Clearing House so requires in any particular case.

C6. Unfunded Contributions

- (a) On any business day after the occurrence of a Default, if the Clearing House determines that by reason of reduction in accordance with Rule C7, (i) the Fund Amount (minus any Contribution of the defaulter) has been reduced by at least 25%, or (ii) by the time of issue of a Default Management Completion Notice in relation to that Default the Fund Amount will have been so reduced, the Clearing House may, by notice in writing (each an "**Unfunded Contribution Notice**"), require each Non-Defaulting Clearing Member to deposit and maintain an amount (each an "**Unfunded Contribution**") in accordance with this Rule.
- (b) Unfunded Contributions will only be payable in circumstances where the relevant Unfunded Contribution Notice is delivered by the Clearing House to Members before a Default Management Completion Notice in relation to the relevant Default.
- (c) The amount of an Unfunded Contribution payable by a Member in respect of a Default shall be payable pro rata by reference to the proportion which that Member's Contribution bears to the aggregate of Contributions of all Non-Defaulting Clearing Members, and shall not exceed the value of the Contribution of that Member as calculated on the last Determination Date prior to the date when the relevant Default occurred.
- (d) Following the payment of an Unfunded Contribution in accordance with Rule C6(a), (b) and (c), the Clearing House may, by the delivery of one or more further Unfunded Contribution Notices, require each Non-Defaulting Clearing Member to pay one or more further Unfunded Contributions in respect of the same Default, provided that the total value of the Unfunded Contributions payable by any Member in respect of a particular Default may not exceed the value of the Contribution of such Member as calculated on the last Determination Date prior to the date when the relevant Default occurred.
- (e) Following a Default in respect of which Unfunded Contributions were paid (the "**First Default**"), the Clearing House may require the payment of further Unfunded Contributions in respect of subsequent Defaults, (which, for the avoidance of doubt, can never be a First Default), provided that Unfunded Contributions will not be payable in respect of any more than three Defaults in any six month period (commencing on the date of delivery of the first Unfunded Contribution Notice in respect of the First Default).
- (f) Members shall deposit the full amount of each Unfunded Contribution (without exercising any rights of set-off or counterclaim) with the Clearing House on the business day following receipt of an Unfunded Contribution Notice.

For the avoidance of doubt, references to "Members" for the purposes of this Rule include any Member (other than a defaulter) who is: (i) a Retiring Member but whose status as a Member has not yet been terminated; and (ii) a Resigning Member whose resignation from the Service is not yet effective.

C7. Cooling Off and Replenishment of Fund

- (a) This Rule applies where, after a Default, the Clearing House has applied part or all of a Contribution under Rule 26 or Rule 28. Upon such application the Fund Amount shall be reduced forthwith by the aggregate amount of the Contributions or parts of Contributions so applied, and (subject to the following provisions of this Rule) the amount of the Contribution that each Member must maintain with the Clearing House shall be reduced by the amount of its Contribution which has been applied pursuant to Rule 28, in each case until the next Determination Date. Unless and until the Clearing House has repaid a defaulter's Contribution, the Fund Amount shall be treated as having been reduced by the amount of the defaulter's Contribution (if any) regardless of whether the Clearing House has applied part or all of that Contribution under Rule 26.
- (b) If following the issuance of a notice to the effect that it has completed the management of a Default (a "**Default Management Completion Notice**") the aggregate amount of Fund Amount determined in accordance with paragraph (a) of this Rule E7 is less than the Fund Floor, the Clearing House may notify each Non Defaulting Clearing Member that it is required to make a supplementary Contribution until the next Determination Date, based on the proportion that the value of its Contribution as at the last Determination Date prior to the date when the relevant Default occurred bears to the value of the aggregate Contributions of all Non-Defaulting Clearing Members as at such date, so as to maintain the Fund Amount at no less than the Fund Floor. Supplementary Contributions required hereunder shall be paid within two business days after notification and in accordance with the Procedures.
- (c) For a further period (a "**Cooling Off Period**") of 30 calendar days from (and including) any day on which the Clearing House has issued a Default Management Completion Notice after an application pursuant to Rule 26 or Rule 28, calculation of the Fund Amount and the Contributions of Members in accordance with Rule C3 shall be suspended.
- (d) Each Member's Contribution during a Cooling Off Period shall be no less than the Minimum Contribution.
- (e) Notwithstanding Rule 33, if a Member which is not a defaulter notifies the Clearing House within two business days after the issue of a Default Management Completion Notice that it wishes to resign from the Service: assuming all other requirements for termination of its membership have been satisfied by the end of the Cooling Off Period, such Member shall cease to be treated as a Member for the purpose of Rule C3 on the next Determination Date, and its Contribution shall (unless utilised in the interim in accordance with Rule 28) be repaid by the Clearing House following that Determination Date in accordance with the Procedures. A Member which has notified its wish to resign remains liable under Rule C8 until the effective date of its resignation.
- (f) The first business day after a Cooling Off Period shall exceptionally be a Determination Date; and the Fund Amount determined on such exceptional Determination Date shall remain in effect until the first business day of the next calendar month.
- (g) There may not be more than three exceptional Determination Dates of the type described in (f) above in any period of six months.

C8. Loss Allocation

- (a) At any time after a Default, the Clearing House may determine that the Excess Loss resulting from the Default will exceed the resources available to be applied to it under Rule 16(a) to (g). If the Clearing House makes such a determination then the Clearing House may implement the process (the "Loss Distribution Process") described in this Rule C8 in order to mitigate the LCH Uncovered Loss. For these purposes, the difference between the Excess Loss as determined by the Clearing House on that day and such resources remaining available on that day shall be the "LCH Uncovered Loss".

- (b) Definitions

In this Rule C8, the following definitions apply:

"Loss Distribution Day" means any business day in a Loss Distribution Period on which the Clearing House, prior to calling for Collateral in respect of margin obligations in accordance with the provisions of the Procedures on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which a Default occurs with respect to a Member to the business day on which all Loss Distribution Charges in respect of such Default have been paid in full.

- (c) Loss Distribution Charges

i On each Loss Distribution Day, each Non-Defaulting Clearing Member shall pay to the Clearing House a **"Loss Distribution Charge"** which is equal to the product of (x) the LCH Uncovered Loss in respect of that Loss Distribution Day and (y) the proportion which that Member's Contribution bears to the aggregate of the Contributions of all Non-Defaulting Clearing Members, provided that the cumulative total of all such Loss Distribution Charges that a Non-Defaulting Clearing Member is required to pay in respect of all Loss Distribution Days relating to that Default shall not be greater than the Loss Distribution Cap Amount in respect of that Non-Defaulting Clearing Member. For this purpose, **"Loss Distribution Cap Amount"** means an amount equal to the Contribution of such Member as calculated at the last Determination Date (disregarding any Determination Date arising after the Default occurred).

ii Any Loss Distribution Charge shall be paid by the Member to the Clearing House in accordance with the Procedures.

- (d) Application of Loss Distribution Charges

The Clearing House shall apply all payments it receives in respect of Loss Distribution Charges solely for the purposes of meeting any loss incurred by the Clearing House in relation to the defaulter's Contracts.

- (e) No Rebate

Subject to Rule C9 and Rule C10(c) the payment to the Clearing House by any Member of any Loss Distribution Charge shall be final and shall not give

rise to any obligation of the Clearing House to repay any such amount or to pay any interest thereon.

(f) Ballot

If on a Loss Distribution Day, the LCH Uncovered Loss exceeds the aggregate amount of Loss Distribution Charges which the Clearing House may be entitled to receive under paragraph (c), the Clearing House may seek approval of Non-Defaulting Clearing Members for a proposal to increase the Loss Distribution Cap Amount for the purposes of the relevant Default to an amount beyond that specified in paragraph (c). Approval shall only be treated as given if, in a ballot: (i) at least 95% by number (rounding fractions upwards to the next 5%) of Members eligible to vote have voted, and no Member which has voted has voted against the proposal; or (ii) in the event that there are more than two but fewer than 20 Members, no more than one Member eligible to vote has voted against the proposal.

C9. Application of Recoveries

(a) The Clearing House will apply any recovery, first to the reimbursement of payers of Loss Distribution Charges, and then to reimburse any Members or other persons to whom recourse has been made under Rule 16(d) to (g), but in reverse order to that in which they appear in Rule 16. In relation to payers of Loss Distribution Charges, any partial recovery will be distributed pro rata to the aggregate payments made by those payers. For the purposes of this Rule, a recovery comprises:

- i any amounts received from the defaulter as a result of the Clearing House being a creditor of the defaulter in respect of the Business of such defaulter in the context of the occurrence of any of the events under Rule 5(i) to (p) in respect of the defaulter or otherwise, other than in respect of sums due to the Clearing House for its own account; or
- ii any other amounts howsoever obtained or recovered in the course of the management of the Default or which are otherwise referable to the Default or the defaulter,

in each case net of any related expenses incurred by the Clearing House or other sums owing to the Clearing House by the defaulter in connection with the Service.

- (b) Nothing in this Rule C9 shall oblige the Clearing House to pursue any litigation or take other action in order to recover the amounts contemplated hereby.
- (c) If a Contribution made by a defaulter to another default fund of the Clearing House has been applied to losses in respect of Contracts registered to an account of the defaulter, any amounts recovered shall be applied *pari passu* as between the relevant default funds.

C10. Service Closure

- (a) Where, after the Default of one or more Members, the Clearing House determines that, notwithstanding the availability of any resources remaining under Rule 16(a) to (g) and the availability of the Loss Distribution Process under Rule C8, the Clearing House does not have sufficient resources to

meet its obligations and liabilities arising in respect of Contracts to which it is party with Non-Defaulting Clearing Members, the Clearing House shall make a further determination (an "**Insufficient Resources Determination**") that the Clearing House does not have sufficient available resources under Rule 16(a) to (g) and via the Loss Distribution Process under Rule C8 to meet its obligations and liabilities arising in respect of those Contracts to which it is party with Non-Defaulting Clearing Members, and the provisions of this Rule shall have effect.

- (b) All outstanding Contracts shall be closed out as of the business day following the date of the Insufficient Resources Determination and any further obligations to make any payments under or in respect of such Contracts shall cease. The closing prices used shall be prices calculated by the Clearing House in accordance with the methodology used by it to carry out end of day margin runs in respect of the outstanding Contracts. Where such data is not available to the Clearing House, the closing price shall be the last price used by the Clearing House to calculate the variation margin requirement for the position to be closed out.
- (c) On the basis of the close out values established for each outstanding Contract, an account shall be taken (as at the time of close out) of what is due, in respect of each Member, from that Member to the Clearing House and from the Clearing House to that Member, as well as all other amounts owing under or in respect of such Contracts and any other amounts that may be due in respect of the Service (including for these purposes, a proportionate share of any amounts owed generally to or from the Clearing House), and the sums due from the Member shall be set off against the sums due from the Clearing House and only the balance of the account shall be payable. Amounts due in respect of such Contracts shall include, but not be limited to, returns of cash Collateral held by the Clearing House in respect of the Member's variation margin obligations and returns of Loss Distribution Charges, but shall exclude the repayment of any cash Collateral held by the Clearing House in respect of the Member's initial margin obligations or any Contributions.
- (d) To the extent that the aggregate of all of the amounts owed to the Clearing House by Members plus all of those other resources applicable to the Service under Rule 16(a) to (g) that have not been applied towards an Excess Loss is less than the aggregate of the amounts owed to Members by the Clearing House, each amount owed to Members by the Clearing House shall be reduced pro rata the shortfall.
- (e) The Clearing House shall determine any amounts due to each Member in respect of cash Collateral held by the Clearing House in respect of the initial margin obligations of the Member and outstanding Contributions to be repaid. The claim of each such Member in respect of the foregoing shall be limited to a pro rata share of the assets available to the Clearing House to satisfy those amounts.
- (f) For each Member, the amount due to it or due from it as determined pursuant to (c) above shall be aggregated with its claim determined pursuant to (d) above and only the net sum shall be payable. Where the result of such calculations is that a Member owes an amount to the Clearing House, that Member shall pay that amount to the Clearing House immediately. Where the result of such calculations is that a Member is owed an amount by the

Clearing House, the Clearing House shall pay that amount to the Member immediately, subject to (g) below.

- (g) The payment of such amount to a Member pursuant to (e) above, subject to any re-calculations performed pursuant to (g) below, shall constitute the full and final payment in respect of the Service and such Member shall not be permitted to make any further claims on the Clearing House in respect of amounts relating to the Service nor shall it be permitted to notify the Clearing House of a Termination Date pursuant to Regulation 39A for a failure to pay any amounts in relation to the Service.
- (h) The Clearing House may make the payments due under (e) above in one or more instalments to the Members in proportion to the value of their claims on the Clearing House under (c) above if some but not all of the amounts due under (e) above or Rule 16(a) to 16(g) have not yet been received. The Clearing House shall take reasonable steps to recover such amounts and may deduct therefrom reasonable administration costs for such recovery. To the extent that the Clearing House determines that any such amounts will not in fact be recoverable, it shall re-determine the amounts due to Members in accordance with this Rule.
- (i) This Rule shall not be applied in the event that a Termination Date has been specified in relation to the Clearing House in accordance with Regulation 39A.
- (j) Nothing in the foregoing shall override the obligation of the Clearing House to return non-cash Collateral transferred to it in respect of initial margin pursuant to the Regulations and Procedures.

C11. Ballot Arrangements

- (a) No proposal for any of the amendments set out in paragraphs (i), (ii), (iii), or (iv) below (each a "**Commodities Default Fund Amendment**") shall be capable of coming into effect unless first approved in a ballot of Members:
 - i any amendment providing for a change in the nature of the liabilities for which a Member's indemnity is given in respect of Commodities Business by virtue of Rule 28;
 - ii any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the Commodities Clearing Members but not in the commitments of any other Members;
 - iii any increase in the maximum size of the Fund Amount for the purposes of Rule C2 beyond USD 2,500,000,000 (or such other level as has been approved in a ballot); and
 - iv any amendment to the amount of the Minimum Contribution or the definition of the Fund Floor.
- (b) For the purposes of a ballot conducted pursuant to this Rule, the provisions of clauses 9.4, 9.6 and 9.7 of the Clearing Membership Agreement shall apply with the following amendments:
 - i the words "major amendment to the Default Fund Rules" in the first line of clause 9.4 of the Clearing Membership Agreement shall be read as "Commodities Default Fund Amendment";

- ii all references to "Clearing Members" shall be read as references to "Commodities Clearing Members";
- iii in paragraph (c) of clause 9.4 of the Clearing Membership Agreement, the reference to "Quarter Day" shall be replaced with a reference to Determination Date, as such term is used in the Commodities Default Fund Supplement to the Default Fund Rules;
- iv references to "Contributions" and "Fund Amount" shall be read in accordance with the Commodities Default Fund Supplement to the Default Fund Rules; and
- v the reference to "clause 9.4" in clause 9.6 of the Clearing Membership Agreement shall be construed accordingly.

Equities Default Fund Supplement

- E1. In this Supplement, subject to any contrary indication or where the context otherwise requires, references to:

the "**Business**" means the Equities Business of a Member

a "**Contract**" means an EquityClear Contract, an Equities Contract, a contract cleared pursuant to a Service and such other cash equity or equity derivative contract as the Clearing House may from time to time specify by notice to the Members

a "**Contribution**" means an Equities Contribution

the "**Default Fund**" means the fund established by this Equities Default Fund Supplement

a "**Determination Date**" means an Equities Determination Date

the "**Excess Loss**" means the Equities Excess Loss

the "**Fund Amount**" means the Equities Fund Amount

a "**Member**" means an Equities Clearing Member and a Clearing Member approved to clear a Specified Market and except where stated otherwise, includes a Co-operating Clearing House

a "**Minimum Contribution**" means GBP 500,000

a "**Non-Defaulting Clearing Member**" means a Member that is not a defaulter under Rule 4 of the Default Rules

"**Service**" means equities and equities-related services provided by the Clearing House pursuant to its rules governing the clearing of the Specified Markets and includes the Equities Service

"**Specified Markets**" means an EquityClear ATP, the TGHL market and any other markets from time to time specified by the Clearing House

and calculations of "**Combined Loss Value**", "**End of Day Margin Weight**", "**Peak Intra-Day Margin Weight**", "**STLIEOM**" and "**Weight Factor**" are carried out in accordance with this Supplement only.

Capitalised terms not otherwise defined in this Supplement shall have the meanings assigned to them in the General Regulations, Rule 15 of the Default Fund Rules or Rule 15A of the Default Fund Rules, as applicable.

E2. Fund Amount

- (a) The Default Fund is denominated in GBP, and all amounts referable to it shall be denominated, calculated, called and payable in GBP.
- (b) On each business day, the Clearing House will determine the "Combined Loss Value" in respect of each of the three preceding calendar months. The Combined Loss Value in respect of a particular day will be the sum of the STLIEOMs for the Members which have the largest and the second largest STLIEOM on that day. For this purpose, the "STLIEOM" means, in respect of

each Member and in respect of any day, the stress-tested loss in excess of initial margin (determined for a given scenario determined by the Clearing House) which could be incurred by the Clearing House in respect of that Member's Business if that Member became a defaulter on that day. References in this Rule E2 to Member include a Co-operating Clearing House and the STLIEOM of a Co-operating Clearing House is included in the calculations under this Rule E2.

- (c) The Fund Amount shall be determined by the Clearing House on the first business day of each calendar month (the "Determination Date") in accordance with this Rule.
- i The Fund Amount is, for a given Determination Date, the largest of the Combined Loss Values as determined during the three calendar month period under Rule E2(b), plus 10%, subject to the following provisions of this Rule.
 - ii On any Determination Date, if the Fund Amount as determined under Rule E2(c)(i) would be lower than three times the Minimum Contribution, the Fund Amount will be deemed to be three times the Minimum Contribution (the "**Fund Floor**").
 - iii On any Determination Date: (a) if the Fund Amount as determined would exceed GBP 150,000,000, the Fund Amount will be deemed to be GBP 150,000,000 unless the Risk Committee of the Clearing House has resolved that an increase in the Fund Amount is warranted, in which case the Fund Amount shall be as determined by the Risk Committee; (b) if the Fund Amount as determined would exceed GBP 500,000,000, the Fund Amount will be deemed to be GBP 500,000,000, notwithstanding any determination by the Risk Committee, unless an increase has been approved by ballot in accordance with Rule E11.
 - iv In the case of a Default in relation to which the Clearing House does not apply Contributions under Rule 26 or Rule 28, determinations of the Fund Amount under the methodology of this Rule are suspended from the date of the occurrence of a Default until the completion of the management of such Default. Where other such Defaults have commenced during the period of suspension, the suspension will end at the completion of the management of the last of such Defaults.

In the case of any Default in relation to which the Clearing House applies Contributions under Rule 26 or Rule 28, determinations of the Fund Amount under the methodology of this Rule are suspended from the date of the occurrence of a Default until the expiry of the Cooling Off Period under Rule E7. Where other such Defaults have commenced during the period of suspension, the suspension will end at the expiry of the Cooling Off Period following the Default Management Completion Notice in respect of the last of those Defaults.

E3. Contributions to Fund

- (a) The amount of each Member's Contribution shall be determined by the Clearing House on each Determination Date on the basis of information available as at close of business on the immediately preceding business day

and notified to such Member as soon as practicable after such determination in accordance with the Procedures. However, determinations of Contributions under the methodology of this Rule are suspended after the occurrence of a Default in accordance with Rule E2(c)(iv).

- (b) A Member's Contribution shall be determined with reference to business conducted by it on the Specified Markets in Contracts as follows:
- i the Member's "**End of Day Margin Weight**" shall be calculated by dividing the average daily initial margin requirement at the end of each day (as calculated under the Procedures or other arrangements applicable) which has applied to the Member during the Reference Period in respect of all Contracts by the total of such average daily requirements applied to all Members other than defaulters;
 - ii the Member's "**Peak Intra-Day Margin Weight**" shall be calculated by dividing the average maximum intra-day initial margin requirement arising at any point during each day during the Reference Period (as calculated under the Procedures or other arrangements applicable) which has applied to the Member in respect of all Contracts by the total of such average maximum intra-day requirements applied to all Members other than defaulters;
 - iii the Member's "**Weight Factor**" shall be calculated by adding one-half of its End of Day Margin Weight to one-half of its Peak Intra-Day Margin Weight,

and the Member's Contribution shall be the amount arrived at by multiplying the Fund Amount by the Member's Weight Factor, provided that (x) if the amount calculated for a particular Member pursuant to the foregoing would, when aggregated with the Contributions of all other Members, produce a Fund Amount that is in excess of that permitted under Rule E2(c)(iii), then such excess amount, as calculated by the Clearing House, shall be iteratively notionally allocated to such Member pro rata to its Contribution as originally calculated and such proportionate excess shall be deducted from the amount originally calculated and the Member's Contribution shall be adjusted accordingly; and provided further that (y) in no case shall a Member's Contribution be less than the Minimum Contribution (notwithstanding that the Fund Amount may, taking into account all Contributions as adjusted in accordance with the provisos to this paragraph, exceed the level specified in Rule E2(c)(iii)).

For the purposes of these calculations:

- iv "**Reference Period**" means the period of three calendar months immediately before the Determination Date;
- v references to "**Members**" do not include references to defaulters (apart from any defaulter in respect of which the Clearing House permits the application of this Rule) or persons which were formerly Members but are not Members on the date on which the relevant calculation is made;
- vi Contributions shall be rounded upwards, if not already such a multiple, to the next integral multiple of one thousand pounds; and

- vii no account shall be taken, in calculating the initial margin requirement or Margin Weight under this Rule E3(b) of any offsets in the initial margin required for Contracts from a Member which may otherwise be permissible under the Procedures or other arrangements applicable.
- (c) Without prejudice to any other requirements which the Clearing House may impose, the amount of the Contribution of a New Member shall be the sum of:
- i the Minimum Contribution; and
 - ii any supplementary sum determined by the Clearing House in its discretion and notified to the New Member. 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.
- (d) Except to the extent that one or other of the caps specified in Rule E2(c)(iii) would be exceeded, the Clearing House may recalculate the Contributions due from certain Members on any business day other than one falling between the application of a Contribution and the end of the Cooling Off Period, as set out at Rule E7, in the following circumstances:
- i if the Combined Loss Value determined under Rule E2(b) on that day deviates by more than 25% upwards or downwards from the Combined Loss Value on which the previous Contribution determination was based, on such business day, the Clearing House shall be entitled to make an adjustment upwards or downwards to the Fund Amount commensurate with the deviation;
 - ii where the Risk Committee considers (for any reason) that a recalculation is warranted between Determination Dates.
- (e) A Co-operating Clearing House is not required to contribute to the Default Fund and references in this Rule E3 to a Member do not include a Co-operating Clearing House.

E4. Interest on Contributions

On each day interest shall accrue on the amount of each Contribution then held by the Clearing House, to the extent that it has not been applied under Rule 26 or Rule 28, at such rate and in such manner as provided by the Procedures, provided that the rate of interest for any particular day shall be based on a market-recognised benchmark rate plus or minus a spread. Such rate and such spread shall be determined, in light of market conditions at such time, by the Clearing House from time to time and notified by the Clearing House to Members. Interest on Contributions shall be payable in arrears and shall be paid on the date or dates specified by the Procedures. Any interest which has accrued under this Rule shall not be regarded as part of a Contribution. References in this Rule E4 to a Member do not include a Co-operating Clearing House.

E5. Payment of Contributions

- (a) Upon determination of the amount of a Contribution on a Determination Date:
- i if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date exceeds

- the amount of the Member's Contribution as determined on the Determination Date, the excess shall be paid by the Clearing House to the Member in accordance with the Procedures;
- ii if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date is the same as the amount of the Member's Contribution as determined on the Determination Date, no sum shall then be payable by or to the Member in respect of its Contribution; and
 - iii if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date is less than the amount of the Member's Contribution as determined on the Determination Date, the shortfall shall be paid by the Member to the Clearing House in accordance with the Procedures.
- (b) The provisions of this Rule do not apply to a Member which is a defaulter, unless the Clearing House so requires in any particular case.
 - (c) References in this Rule E5 to a Member do not include a Co-operating Clearing House.

E6. Unfunded Contributions

- (a) On any business day after the occurrence of a Default, if the Clearing House determines that by reason of reduction in accordance with Rule E7, (i) the Fund Amount (minus any Contribution of the defaulter) has been reduced by at least 25%, or (ii) by the time of issue of a Default Management Completion Notice in relation to that Default the Fund Amount will have been so reduced, the Clearing House may, by notice in writing (each an "**Unfunded Contribution Notice**"), require each Non-Defaulting Clearing Member to deposit and maintain an amount (each an "**Unfunded Contribution**") in accordance with this Rule.
- (b) Unfunded Contributions will only be payable in circumstances where the relevant Unfunded Contribution Notice is delivered by the Clearing House to Members before a Default Management Completion Notice in relation to the relevant Default.
- (c) The amount of an Unfunded Contribution payable by a Member in respect of a Default shall be payable pro rata by reference to the proportion which that Member's Contribution bears to the aggregate of Contributions of all Non-Defaulting Clearing Members, and shall not exceed the value of the Contribution of that Member as calculated on the last Determination Date prior to the date when the relevant Default occurred.
- (d) Following the payment of an Unfunded Contribution in accordance with Rule E6(a), (b) and (c), the Clearing House may, by the delivery of one or more further Unfunded Contribution Notices, require each Non-Defaulting Clearing Member to pay one or more further Unfunded Contributions in respect of the same Default, provided that the total value of the Unfunded Contributions payable by any Member in respect of a particular Default may not exceed the value of the Contribution of such Member as calculated on the last Determination Date prior to the date when the relevant Default occurred.

- (e) Following a Default in respect of which Unfunded Contributions were paid (the "**First Default**"), the Clearing House may require the payment of further Unfunded Contributions in respect of subsequent Defaults, (which, for the avoidance of doubt, can never be a First Default), provided that Unfunded Contributions will not be payable in respect of any more than three Defaults in any six month period (commencing on the date of delivery of the first Unfunded Contribution Notice in respect of the First Default).
- (f) Members shall deposit the full amount of each Unfunded Contribution (without exercising any rights of set-off or counterclaim) with the Clearing House on the business day following receipt of an Unfunded Contribution Notice.

For the avoidance of doubt, references to "Members" for the purposes of this Rule: (i) include any Member (other than a defaulter) who is a Retiring Member but whose status as a Member has not yet been terminated; (ii) include any Member (other than a defaulter) who is a Resigning Member whose resignation from the Service is not yet effective; and (iii) do not include a Co-operating Clearing House.

E7. Cooling Off and Replenishment of Fund

- (a) This Rule applies where, after a Default, the Clearing House has applied part or all of a Contribution under Rule 26 or Rule 28. Upon such application the Fund Amount shall be reduced forthwith by the aggregate amount of the Contributions or parts of Contributions so applied, and (subject to the following provisions of this Rule) the amount of the Contribution that each Member must maintain with the Clearing House shall be reduced by the amount of its Contribution which has been applied pursuant to Rule 28, in each case until the next Determination Date. Unless and until the Clearing House has repaid a defaulter's Contribution, the Fund Amount shall be treated as having been reduced by the amount of the defaulter's Contribution (if any) regardless of whether the Clearing House has applied part or all of that Contribution under Rule 26.
- (b) If following the issuance of a notice to the effect that it has completed the management of a Default (a "**Default Management Completion Notice**") the aggregate amount of Fund Amount determined in accordance with paragraph (a) of this Rule E7 is less than the Fund Floor, the Clearing House may notify each Non-Defaulting Clearing Member that it is required to make a supplementary Contribution until the next Determination Date, based on the proportion that the value of its Contribution as at the last Determination Date prior to the date when the relevant Default occurred bears to the value of the aggregate Contributions of all Non-Defaulting Clearing Members as at such date, so as to maintain the Fund Amount at no less than the Fund Floor. Supplementary Contributions required hereunder shall be paid within two business days after notification and in accordance with the Procedures.
- (c) For a further period (a "**Cooling Off Period**") of 30 calendar days from (and including) any day on which the Clearing House has issued a Default Management Completion Notice after an application pursuant to Rule 26 or Rule 28, calculation of the Fund Amount and the Contributions of Members in accordance with Rule E3 shall be suspended.
- (d) Each Member's Contribution during a Cooling Off Period shall be no less than the Minimum Contribution.

- (e) Notwithstanding Rule 33, if a Member which is not a defaulter notifies the Clearing House within two business days after the issue of a Default Management Completion Notice that it wishes to resign from the Service: assuming all other requirements for termination of its membership have been satisfied by the end of the Cooling Off Period, such Member shall cease to be treated as a Member for the purpose of Rule E3 on the next Determination Date, and its Contribution shall (unless utilised in the interim in accordance with Rule 28) be repaid by the Clearing House following that Determination Date in accordance with the Procedures. A Member which has notified its wish to resign remains liable under Rule E8 until the effective date of its resignation.
- (f) The first business day after a Cooling Off Period shall exceptionally be a Determination Date; and the Fund Amount determined on such exceptional Determination Date shall remain in effect until the first business day of the next calendar month.
- (g) There may not be more than three exceptional Determination Dates of the type described in (f) above in any period of six months.
- (h) References in this Rule E7 to a Member do not include a Co-operating Clearing House.

E8. Loss Allocation

- (a) At any time after a Default, the Clearing House may determine that the Excess Loss resulting from the Default will exceed the resources available to be applied to it under Rule 16(a) to (g). If the Clearing House makes such a determination then the Clearing House may implement the process (the "**Loss Distribution Process**") described in this Rule E8 in order to mitigate the LCH Uncovered Loss. For these purposes, the difference between the Excess Loss as determined by the Clearing House on that day and such resources remaining available on that day shall be the "**LCH Uncovered Loss**".

- (b) *Definitions and interpretation*

In this Rule E8, references to a Member do not include a Co-operating Clearing House and the following definitions apply:

"Loss Distribution Day" means any business day in a Loss Distribution Period on which the Clearing House, prior to calling for Collateral in respect of margin obligations in accordance with the provisions of the Procedures on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which a Default occurs with respect to a Member to the business day on which all Loss Distribution Charges in respect of such Default have been paid in full.

- (c) *Loss Distribution Charges*

- i On each Loss Distribution Day, each Non-Defaulting Clearing Member shall pay to the Clearing House a "**Loss Distribution Charge**" which

is equal to the product of (x) the LCH Uncovered Loss in respect of that Loss Distribution Day and (y) the proportion which that Member's Contribution bears to the aggregate of the Contributions of all Non-Defaulting Clearing Members, provided that the cumulative total of all such Loss Distribution Charges that a Non-Defaulting Clearing Member is required to pay in respect of all Loss Distribution Days relating to that Default shall not be greater than the Loss Distribution Cap Amount in respect of that Non-Defaulting Clearing Member, and provided such Loss Distribution Charge shall also include any liquidity amounts. For this purpose, "**Loss Distribution Cap Amount**" means an amount equal to the Contribution of such Member as calculated at the last Determination Date (disregarding any Determination Date arising after the Default occurred). For the purposes of this Rule E8, "**liquidity amounts**" means the gross amount paid or payable for borrowed or purchased assets solely to enable the physical settlement of Contracts.

- ii Any Loss Distribution Charge shall be paid by the Member to the Clearing House in accordance with the Procedures.

(d) *Application of Loss Distribution Charges*

Apart from liquidity amounts used to effect physical settlement in accordance with Rule E8(c)(i), the Clearing House shall apply all other payments it receives in respect of Loss Distribution Charges solely for the purposes of meeting any loss incurred by the Clearing House in relation to the defaulter's Contracts.

(e) *No Rebate*

- i Subject to Rule E8(e)(ii), Rule E9 and Rule E10(c), the payment to the Clearing House by any Member of any Loss Distribution Charge shall be final and shall not give rise to any obligation of the Clearing House to repay any such amount or to pay any interest thereon.
- ii Following the issuance of a Default Management Completion Notice, surplus amounts of Loss Distribution Charges comprising liquidity amounts for physical settlement shall, in the case of a Retiring Member or a Resigning Member, be returned to such Member, and, in the case of other Members, be set off against a Member's Contribution (provided any surplus liquidity amounts in excess of the Contribution shall be returned to such Member), in both cases, pro rata by reference to the proportion which the Loss Distribution Charge paid by the relevant Member bears to the aggregate of Loss Distribution Charges paid by all Non-Defaulting Clearing Members.

(f) *Ballot*

If on a Loss Distribution Day, the LCH Uncovered Loss exceeds the aggregate amount of Loss Distribution Charges which the Clearing House may be entitled to receive under paragraph (c), the Clearing House may seek approval of Non-Defaulting Clearing Members for a proposal to increase the Loss Distribution Cap Amount for the purposes of the relevant Default to an amount beyond that specified in paragraph (c). Approval shall only be treated as given if, in a ballot: (i) at least 95% by number (rounding fractions upwards

to the next 5%) of Members eligible to vote have voted, and no Member which has voted has voted against the proposal; or (ii) in the event that there are more than two but fewer than 20 Members, no more than one Member eligible to vote has voted against the proposal.

E9. Application of Recoveries

(a) The Clearing House will apply any recovery, first to the reimbursement of payers of Loss Distribution Charges, and then to reimburse any Members or other persons to whom recourse has been made under Rule 16(d) to (g), but in reverse order to that in which they appear in Rule 16. In relation to payers of Loss Distribution Charges, any partial recovery will be distributed pro rata to the aggregate payments made by those payers. For the purposes of this Rule, a recovery comprises:

- i any amounts received from the defaulter as a result of the Clearing House being a creditor of the defaulter in respect of the Business of such defaulter in the context of the occurrence of any of the events under Rule 5(i) to (p) in respect of the defaulter or otherwise, other than in respect of sums due to the Clearing House for its own account; or
- ii any other amounts howsoever obtained or recovered in the course of the management of the Default or which are otherwise referable to the Default or the defaulter,

in each case net of any related expenses incurred by the Clearing House or other sums owing to the Clearing House by the defaulter in connection with the Service.

- (b) Nothing in this Rule E9 shall oblige the Clearing House to pursue any litigation or take other action in order to recover the amounts contemplated hereby.
- (c) If a Contribution made by a defaulter to another default fund of the Clearing House has been applied to losses in respect of Contracts registered to an account of the defaulter, any amounts recovered shall be applied *pari passu* as between the relevant default funds.
- (d) References in this Rule E9 to a Member do not include a Co-operating Clearing House.

E10. Service Closure

(a) Where, after the Default of one or more Members, the Clearing House determines that, notwithstanding the availability of any resources remaining under Rule 16(a) to (g) and the availability of the Loss Distribution Process under Rule E8, the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of Contracts to which it is party with Non-Defaulting Clearing Members, the Clearing House shall make a further determination (an "**Insufficient Resources Determination**") that the Clearing House does not have sufficient available resources under Rule 16(a) to (g) and via the Loss Distribution Process under Rule E8 to meet its obligations and liabilities arising in respect of those Contracts to which it is

party with Non-Defaulting Clearing Members, and the provisions of this Rule shall have effect.

- (b) All outstanding Contracts shall be closed out as of the business day following the date of the Insufficient Resources Determination and any further obligations to make any payments under or in respect of such Contracts shall cease. The closing prices used shall be prices calculated by the Clearing House in accordance with the methodology used by it to carry out end of day margin runs in respect of the outstanding Contracts. Where such data is not available to the Clearing House, the closing price shall be the last price used by the Clearing House to calculate the variation margin requirement for the position to be closed out.
- (c) On the basis of the close out values established for each outstanding Contract, an account shall be taken (as at the time of close out) of what is due, in respect of each Member, from that Member to the Clearing House and from the Clearing House to that Member, as well as all other amounts owing under or in respect of such Contracts and any other amounts that may be due in respect of the Service (including for these purposes, a proportionate share of any amounts owed generally to or from the Clearing House), and the sums due from the Member shall be set off against the sums due from the Clearing House and only the balance of the account shall be payable. Amounts due in respect of such Contracts shall include, but not be limited to, returns of cash Collateral held by the Clearing House in respect of the Member's variation margin obligations and returns of Loss Distribution Charges, but shall exclude the repayment of any cash Collateral held by the Clearing House in respect of the Member's initial margin obligations or any Contributions.

To the extent that the aggregate of all of the amounts owed to the Clearing House by Members (including Co-operating Clearing Houses) plus all of those other resources applicable to the Service under Rule 16(a) to (g) that have not been applied towards an Excess Loss is less than the aggregate of the amounts owed to Members (including Co-operating Clearing Houses) by the Clearing House, each amount owed to Members by the Clearing House shall be reduced pro rata the shortfall. For the avoidance of doubt, no amount owed by the Clearing House to a Co-operating Clearing House is to be reduced pursuant to this Rule 10(c).

- (d) The Clearing House shall determine any amounts due to each Member in respect of the repayment of any cash Collateral held by the Clearing House in respect of the initial margin obligations of the Member and outstanding Contributions to be repaid. The claim of each such Member in respect of the foregoing shall be limited to a pro rata share of the assets available to the Clearing House to satisfy those amounts.
- (e) For each Member, the amount due to it or due from it as determined pursuant to (c) above shall be aggregated with its claim determined pursuant to (d) above and only the net sum shall be payable. Where the result of such calculations is that a Member owes an amount to the Clearing House, that Member shall pay that amount to the Clearing House immediately. Where the result of such calculations is that a Member is owed an amount by the Clearing House, the Clearing House shall pay that amount to the Member immediately, subject to (g) below.

- (f) The payment of such amount to a Member pursuant to (e) above, subject to any re-calculations performed pursuant to (g) below, shall constitute the full and final payment in respect of the Service and such Member shall not be permitted to make any further claims on the Clearing House in respect of amounts relating to the Service nor shall it be permitted to notify the Clearing House of a Termination Date pursuant to Regulation 39A for a failure to pay any amounts in relation to the Service.
- (g) The Clearing House may make the payments due under (e) above in one or more instalments to the Members in proportion to the value of their claims on the Clearing House under (c) above if some but not all of the amounts due under (e) above or Rule 16(a) to 16(g) have not yet been received. The Clearing House shall take reasonable steps to recover such amounts and may deduct therefrom reasonable administration costs for such recovery. To the extent that the Clearing House determines that any such amounts will not in fact be recoverable, it shall re-determine the amounts due to Members in accordance with this Rule.
- (h) This Rule shall not be applied in the event that a Termination Date has been specified in relation to the Clearing House in accordance with Regulation 39A.
 - i Nothing in the foregoing shall override the obligation of the Clearing House to return non-cash Collateral transferred to it in respect of initial margin pursuant to the Regulations and Procedures.
- (i) Except for references to Non Defaulting Clearing Members in Rule 10(a), and except where otherwise stated, references in this Rule E10 to a Member do not include a Co-operating Clearing House.

E11. Ballot Arrangements

- (a) No proposal for any of the amendments set out in paragraphs (i), (ii), (iii) or (iv) below (each an "**Equities Default Fund Amendment**") shall be capable of coming into effect unless first approved in a ballot of Members:
 - i any amendment providing for a change in the nature of the liabilities for which a Member's indemnity is given in respect of Equities Business by virtue of Rule 28;
 - ii any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the Equities Clearing Members but not in the commitments of any other Members;
 - iii any increase in the maximum size of the Fund Amount for the purposes of Rule E2 beyond GBP 500,000,000 (or such other level as has been approved in a ballot); and
 - iv any amendment to the amount of the Minimum Contribution or the definition of the Fund Floor.
- (b) For the purposes of a ballot conducted pursuant to this Rule, the provisions of clauses 9.4, 9.6 and 9.7 of the Clearing Membership Agreement shall apply with the following amendments:

- i the words "major amendment to the Default Fund Rules" in the first line of clause 9.4 of the Clearing Membership Agreement shall be read as "Equities Default Fund Amendment";
 - ii all references to "Clearing Members" shall be read as references to "Equities Clearing Members";
 - iii in paragraph (c) of clause 9.4 of the Clearing Membership Agreement, the reference to "Quarter Day" shall be replaced with a reference to Determination Date, as such term is used in the Equities Default Fund Supplement to the Default Fund Rules;
 - iv references to "Contributions" and "Fund Amount" shall be read in accordance with the Equities Default Fund Supplement to the Default Fund Rules; and
 - v the reference to "clause 9.4" in clause 9.6 of the Clearing Membership Agreement shall be construed accordingly.
- (c) References in this Rule E11 to a Member do not include a Co-operating Clearing House.

Listed Interest Rate Default Fund Supplement

- L1.** In this Supplement, subject to any contrary indication or where the context otherwise requires, references to:

the "**Business**" means the Listed Interest Rate Business of a Member

a "**Contract**" means a Listed Interest Rate Contract, a contract cleared pursuant to a Service and such other listed interest rate derivative contract as the Clearing House may from time to time specify by notice to the Members

a "**Contribution**" means a Listed Interest Rate Contribution

the "**Default Fund**" means the fund established by this Listed Interest Rate Default Fund Supplement

a "**Determination Date**" means a Listed Interest Rate Determination Date

the "**Excess Loss**" means the Listed Interest Rate Excess Loss

the "**Fund Amount**" means the Listed Interest Rate Fund Amount

a "**Member**" means a Listed Interest Rate Clearing Member and a Clearing Member approved to clear a Specified Market

a "**Minimum Contribution**" means GBP 500,000

a "**Non-Defaulting Clearing Member**" means a Member that is not a defaulter under Rule 4 of the Default Rules

"**Service**" means the listed interest rate derivatives and listed interest rate derivatives-related services provided by the Clearing House pursuant to its rules governing the clearing of the Specified Markets and includes the Listed Interest Rate Service

"**Specified Markets**" means NLX and any other markets from time to time specified by the Clearing House

and calculations of "**Combined Loss Value**", "**End of Day Margin Weight**", "**Peak Intra-Day Margin Weight**", "**STLIEOM**" and "**Weight Factor**" are carried out in accordance with this Supplement only.

Capitalised terms not otherwise defined in this Supplement shall have the meanings assigned to them in the General Regulations, Rule 15 of the Default Fund Rules or Rule 15A of the Default Fund Rules, as applicable.

L2. Fund Amount

- (a) The Default Fund is denominated in GBP, and all amounts referable to it shall be denominated, calculated, called and payable in GBP.
- (b) On each business day, the Clearing House will determine the "**Combined Loss Value**" in respect of each of the three preceding calendar months. The Combined Loss Value in respect of a particular day will be the sum of the STLIEOMs for the Members which have the largest and the second largest STLIEOM on that day. For this purpose, the "**STLIEOM**" means, in respect of

each Member and in respect of any day, the stress-tested loss in excess of initial margin (determined for a given scenario determined by the Clearing House) which could be incurred by the Clearing House in respect of that Member's Business if that Member became a defaulter on that day.

- (c) The Fund Amount shall be determined by the Clearing House on the first business day of each calendar month (the "**Determination Date**") in accordance with this Rule.
- i The Fund Amount is, for a given Determination Date, the largest of the Combined Loss Values as determined during the three calendar month period under Rule L2(b), plus 10%, subject to the following provisions of this Rule.
 - ii On any Determination Date, if the Fund Amount as determined under Rule L2(c)(i) would be lower than three times the Minimum Contribution, the Fund Amount will be deemed to be three times the Minimum Contribution (the "**Fund Floor**").
 - iii On any Determination Date: (a) if the Fund Amount as determined would exceed GBP 500,000,000, the Fund Amount will be deemed to be GBP 500,000,000 unless the Risk Committee of the Clearing House has resolved that an increase in the Fund Amount is warranted, in which case the Fund Amount shall be as determined by the Risk Committee; (b) if the Fund Amount as determined would exceed GBP 1,500,000,000, the Fund Amount will be deemed to be GBP 1,500,000,000, notwithstanding any determination by the Risk Committee, unless an increase has been approved by ballot in accordance with Rule L11.
 - iv In the case of a Default in relation to which the Clearing House does not apply Contributions under Rule 26 or Rule 28, determinations of the Fund Amount under the methodology of this Rule are suspended from the date of the occurrence of a Default until the completion of the management of such Default. Where other such Defaults have commenced during the period of suspension, the suspension will end at the completion of the management of the last of such Defaults.

In the case of any Default in relation to which the Clearing House applies Contributions under Rule 26 or Rule 28, determinations of the Fund Amount under the methodology of this Rule are suspended from the date of the occurrence of a Default until the expiry of the Cooling Off Period under Rule L7. Where other such Defaults have commenced during the period of suspension, the suspension will end at the expiry of the Cooling Off Period following the Default Management Completion Notice in respect of the last of those Defaults.

L3. Contributions to Fund

- (a) The amount of each Member's Contribution shall be determined by the Clearing House on each Determination Date on the basis of information available as at close of business on the immediately preceding business day and notified to such Member as soon as practicable after such determination in accordance with the Procedures. However, determinations of Contributions under the methodology of this Rule are suspended after the occurrence of a Default in accordance with Rule L2(c)(v).

- (b) A Member's Contribution shall be determined with reference to business conducted by it on the Specified Markets in Contracts as follows:
- i the Member's "**End of Day Margin Weight**" shall be calculated by dividing the average daily initial margin requirement at the end of each day (as calculated under the Procedures or other arrangements applicable) which has applied to the Member during the Reference Period in respect of all Contracts by the total of such average daily requirements applied to all Members other than defaulters;
 - ii the Member's "**Peak Intra-Day Margin Weight**" shall be calculated by dividing the average maximum intra-day initial margin requirement arising at any point during each day during the Reference Period (as calculated under the Procedures or other arrangements applicable) which has applied to the Member in respect of all Contracts by the total of such average maximum intra-day requirements applied to all Members other than defaulters;
 - iii the Member's "**Weight Factor**" shall be calculated by adding one-half of its End of Day Margin Weight to one-half of its Peak Intra-Day Margin Weight,

and the Member's Contribution shall be the amount arrived at by multiplying the Fund Amount by the Member's Weight Factor, provided that (x) if the amount calculated for a particular Member pursuant to the foregoing would, when aggregated with the Contributions of all other Members, produce a Fund Amount that is in excess of that permitted under Rule L2(c)(iii), then such excess amount, as calculated by the Clearing House, shall be iteratively notionally allocated to such Member pro rata to its Contribution as originally calculated and such proportionate excess shall be deducted from the amount originally calculated and the Member's Contribution shall be adjusted accordingly; and provided further that (y) in no case shall a Member's Contribution be less than the Minimum Contribution (notwithstanding that the Fund Amount may, taking into account all Contributions as adjusted in accordance with the provisos to this paragraph, exceed the level specified in Rule L2(c)(iii)).

For the purposes of these calculations:

- iv "**Reference Period**" means the period of three calendar months immediately before the Determination Date;
- v references to "**Members**" do not include references to defaulters (apart from any defaulter in respect of which the Clearing House permits the application of this Rule) or persons which were formerly Members but are not Members on the date on which the relevant calculation is made;
- vi Contributions shall be rounded upwards, if not already such a multiple, to the next integral multiple of one thousand pounds; and
- vii no account shall be taken, in calculating the initial margin requirement or Margin Weight under this Rule L3(b) of any offsets in the initial margin required for Contracts from a Member which may otherwise be permissible under the Procedures or other arrangements applicable.

- (c) Without prejudice to any other requirements which the Clearing House may impose, the amount of the Contribution of a New Member shall be the sum of:
 - i the Minimum Contribution; and
 - ii any supplementary sum determined by the Clearing House in its discretion and notified to the New Member. 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.
- (d) Except to the extent that one or other of the caps specified in Rule L2(c)(iii) would be exceeded, the Clearing House may recalculate the Contributions due from certain Members on any business day other than one falling between the application of a Contribution and the end of the Cooling Off Period, as set out at Rule L7, in the following circumstances:
 - i if the Combined Loss Value determined under Rule L2(b) on that day deviates by more than 25% upwards or downwards from the Combined Loss Value on which the previous Contribution determination was based, on such business day, the Clearing House shall be entitled to make an adjustment upwards or downwards to the Fund Amount commensurate with the deviation;
 - ii where the Risk Committee considers (for any reason) that a recalculation is warranted between Determination Dates.

L4. Interest on Contributions

On each day interest shall accrue on the amount of each Contribution then held by the Clearing House, to the extent that it has not been applied under Rule 26 or Rule 28, at such rate and in such manner as provided by the Procedures, provided that the rate of interest for any particular day shall be based on a market-recognised benchmark rate plus or minus a spread. Such rate and such spread shall be determined, in light of market conditions at such time, by the Clearing House from time to time and notified by the Clearing House to Members. Interest on Contributions shall be payable in arrears and shall be paid on the date or dates specified by the Procedures. Any interest which has accrued under this Rule shall not be regarded as part of a Contribution.

L5. Payment of Contributions

- (a) Upon determination of the amount of a Contribution on a Determination Date:
 - i if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date exceeds the amount of the Member's Contribution as determined on the Determination Date, the excess shall be paid by the Clearing House to the Member in accordance with the Procedures;
 - ii if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date is the same as the amount of the Member's Contribution as determined on the Determination Date, no sum shall then be payable by or to the Member in respect of its Contribution; and

- iii if the amount of the Contribution of a Member at close of business on the business day immediately before the Determination Date is less than the amount of the Member's Contribution as determined on the Determination Date, the shortfall shall be paid by the Member to the Clearing House in accordance with the Procedures.
- (b) The provisions of this Rule do not apply to a Member which is a defaulter, unless the Clearing House so requires in any particular case.

L6. Unfunded Contributions

- (a) On any business day after the occurrence of a Default, if the Clearing House determines that by reason of reduction in accordance with Rule L7, (i) the Fund Amount (minus any Contribution of the defaulter) has been reduced by at least 25%, or (ii) by the time of issue of a Default Management Completion Notice in relation to that Default the Fund Amount will have been so reduced, the Clearing House may, by notice in writing (each an "**Unfunded Contribution Notice**"), require each Non-Defaulting Clearing Member to deposit and maintain an amount (each an "**Unfunded Contribution**") in accordance with this Rule.
- (b) Unfunded Contributions will only be payable in circumstances where the relevant Unfunded Contribution Notice is delivered by the Clearing House to Members before a Default Management Completion Notice in relation to the relevant Default.
- (c) The amount of an Unfunded Contribution payable by a Member in respect of a Default shall be payable pro rata by reference to the proportion which that Member's Contribution bears to the aggregate of Contributions of all Non-Defaulting Clearing Members, and shall not exceed the value of the Contribution of that Member as calculated on the last Determination Date prior to the date when the relevant Default occurred.
- (d) Following the payment of an Unfunded Contribution in accordance with Rule L6(a), (b) and (c), the Clearing House may, by the delivery of one or more further Unfunded Contribution Notices, require each Non-Defaulting Clearing Member to pay one or more further Unfunded Contributions in respect of the same Default, provided that the total value of the Unfunded Contributions payable by any Member in respect of a particular Default may not exceed the value of the Contribution of such Member as calculated on the last Determination Date prior to the date when the relevant Default occurred.
- (e) Following a Default in respect of which Unfunded Contributions were paid (the "**First Default**"), the Clearing House may require the payment of further Unfunded Contributions in respect of subsequent Defaults, (which, for the avoidance of doubt, can never be a First Default), provided that Unfunded Contributions will not be payable in respect of any more than three Defaults in any six month period (commencing on the date of delivery of the first Unfunded Contribution Notice in respect of the First Default).
- (f) Members shall deposit the full amount of each Unfunded Contribution (without exercising any rights of set-off or counterclaim) with the Clearing House on the business day following receipt of an Unfunded Contribution Notice.

For the avoidance of doubt, references to "Members" for the purposes of this Rule include any Member (other than a defaulter) who is: (i) a Retiring Member but whose status as a Member has not yet been terminated; and (ii) a Resigning Member whose resignation from the Service is not yet effective.

L7. Cooling Off and Replenishment of Fund

- (a) This Rule applies where, after a Default, the Clearing House has applied part or all of a Contribution under Rule 26 or Rule 28. Upon such application the Fund Amount shall be reduced forthwith by the aggregate amount of the Contributions or parts of Contributions so applied, and (subject to the following provisions of this Rule) the amount of the Contribution that each Member must maintain with the Clearing House shall be reduced by the amount of its Contribution which has been applied pursuant to Rule 28, in each case until the next Determination Date. Unless and until the Clearing House has repaid a defaulter's Contribution, the Fund Amount shall be treated as having been reduced by the amount of the defaulter's Contribution (if any) regardless of whether the Clearing House has applied part or all of that Contribution under Rule 26.
- (b) If following the issuance of a notice to the effect that it has completed the management of a Default (a "**Default Management Completion Notice**") the aggregate amount of Fund Amount determined in accordance with paragraph (a) of this Rule L7 is less than the Fund Floor, the Clearing House may notify each Non-Defaulting Clearing Member that it is required to make a supplementary Contribution until the next Determination Date, based on the proportion that the value of its Contribution as at the last Determination Date prior to the date when the relevant Default occurred bears to the value of the aggregate Contributions of all Non-Defaulting Clearing Members as at such date, so as to maintain the Fund Amount at no less than the Fund Floor. Supplementary Contributions required hereunder shall be paid within two business days after notification and in accordance with the Procedures.
- (c) For a further period (a "**Cooling Off Period**") of 30 calendar days from (and including) any day on which the Clearing House has issued a Default Management Completion Notice after an application pursuant to Rule 26 or Rule 28, calculation of the Fund Amount and the Contributions of Members in accordance with Rule L3 shall be suspended.
- (d) Each Member's Contribution during a Cooling Off Period shall be no less than the Minimum Contribution.
- (e) Notwithstanding Rule 33, if a Member which is not a defaulter notifies the Clearing House within two business days after the issue of a Default Management Completion Notice that it wishes to resign from the Service: assuming all other requirements for termination of its membership have been satisfied by the end of the Cooling Off Period, such Member shall cease to be treated as a Member for the purpose of Rule L3 on the next Determination Date, and its Contribution shall (unless utilised in the interim in accordance with Rule 28) be repaid by the Clearing House following that Determination Date in accordance with the Procedures. A Member which has notified its wish to resign remains liable under Rule L8 until the effective date of its resignation.

- (f) The first business day after a Cooling Off Period shall exceptionally be a Determination Date; and the Fund Amount determined on such exceptional Determination Date shall remain in effect until the first business day of the next calendar month.
- (g) There may not be more than three exceptional Determination Dates of the type described in (f) above in any period of six months.

L8. Loss Allocation

- (a) At any time after a Default, the Clearing House may determine that the Excess Loss resulting from the Default will exceed the resources available to be applied to it under Rule 16(a) to (g). If the Clearing House makes such a determination then the Clearing House may implement the process (the "**Loss Distribution Process**") described in this Rule L8 in order to mitigate the LCH Uncovered Loss. For these purposes, the difference between the Excess Loss as determined by the Clearing House on that day and such resources remaining available on that day shall be the "**LCH Uncovered Loss**".

- (b) *Definitions*

In this Rule L8, the following definitions apply:

"Loss Distribution Day" means any business day in a Loss Distribution Period on which the Clearing House, prior to calling for Collateral in respect of margin obligations in accordance with the provisions of the Procedures on such business day, determines that the LCH Uncovered Loss for that business day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which a Default occurs with respect to a Member to the business day on which all Loss Distribution Charges in respect of such Default have been paid in full.

- (c) Loss Distribution Charges

- i On each Loss Distribution Day, each Non-Defaulting Clearing Member shall pay to the Clearing House a "**Loss Distribution Charge**" which is equal to the product of (x) the LCH Uncovered Loss in respect of that Loss Distribution Day and (y) the proportion which that Member's Contribution bears to the aggregate of the Contributions of all Non-Defaulting Clearing Members, provided that the cumulative total of all such Loss Distribution Charges that a Non-Defaulting Clearing Member is required to pay in respect of all Loss Distribution Days relating to that Default shall not be greater than the Loss Distribution Cap Amount in respect of that Non-Defaulting Clearing Member, and provided such Loss Distribution Charge shall also include any liquidity amounts. For this purpose, "**Loss Distribution Cap Amount**" means an amount equal to the Contribution of such Member as calculated at the last Determination Date (disregarding any Determination Date arising after the Default occurred). For the purposes of this Rule L8, "**liquidity amounts**" means the gross amount paid or payable for borrowed or purchased assets solely to enable the physical settlement of Contracts.

- ii Any Loss Distribution Charge shall be paid by the Member to the Clearing House in accordance with the Procedures.
- (d) Application of Loss Distribution Charges

Apart from liquidity amounts used to effect physical settlement in accordance with Rule L8(c)(i), the Clearing House shall apply all other payments it receives in respect of Loss Distribution Charges solely for the purposes of meeting any loss incurred by the Clearing House in relation to the defaulter's Contracts.
- (e) No Rebate
 - i Subject to Rule L8(e)(ii), Rule L9 and Rule L10(c), the payment to the Clearing House by any Member of any Loss Distribution Charge shall be final and shall not give rise to any obligation of the Clearing House to repay any such amount or to pay any interest thereon.
 - ii Following the issuance of a Default Management Completion Notice, surplus amounts of Loss Distribution Charges comprising liquidity amounts for physical settlement shall, in the case of a Retiring Member or a Resigning Member, be returned to such Member, and, in the case of other Members, be set off against a Member's Contribution (provided any surplus liquidity amounts in excess of the Contribution shall be returned to such Member), in both cases, pro rata by reference to the proportion which the Loss Distribution Charge paid by the relevant Member bears to the aggregate of Loss Distribution Charges paid by all Non-Defaulting Clearing Members.
- (f) Ballot
 - i If on a Loss Distribution Day, the LCH Uncovered Loss exceeds the aggregate amount of Loss Distribution Charges which the Clearing House may be entitled to receive under paragraph (c), the Clearing House may seek approval of Non-Defaulting Clearing Members for a proposal to increase the Loss Distribution Cap Amount for the purposes of the relevant Default to an amount beyond that specified in paragraph (c). Approval shall only be treated as given if, in a ballot: (i) at least 95% by number (rounding fractions upwards to the next 5%) of Members eligible to vote have voted, and no Member which has voted has voted against the proposal; or (ii) in the event that there are more than two but fewer than 20 Members, no more than one Member eligible to vote has voted against the proposal.

L9. Application of Recoveries

- (a) The Clearing House will apply any recovery, first to the reimbursement of payers of Loss Distribution Charges, and then to reimburse any Members or other persons to whom recourse has been made under Rule 16(d) to (g), but in reverse order to that in which they appear in Rule 16. In relation to payers of Loss Distribution Charges, any partial recovery will be distributed pro rata to the aggregate payments made by those payers. For the purposes of this Rule, a recovery comprises:

- i any amounts received from the defaulter as a result of the Clearing House being a creditor of the defaulter in respect of the Business of such defaulter in the context of the occurrence of any of the events under Rule 5(i) to (p) in respect of the defaulter or otherwise, other than in respect of sums due to the Clearing House for its own account; or
- ii any other amounts howsoever obtained or recovered in the course of the management of the Default or which are otherwise referable to the Default or the defaulter,

in each case net of any related expenses incurred by the Clearing House or other sums owing to the Clearing House by the defaulter in connection with the Service.

- (b) Nothing in this Rule L9 shall oblige the Clearing House to pursue any litigation or take other action in order to recover the amounts contemplated hereby.
- (c) If a Contribution made by a defaulter to another default fund of the Clearing House has been applied to losses in respect of Contracts registered to an account of the defaulter, any amounts recovered shall be applied *pari passu* as between the relevant default funds.

L10. Service Closure

- (a) Where, after the Default of one or more Members, the Clearing House determines that, notwithstanding the availability of any resources remaining under Rule 16(a) to (g) and the availability of the Loss Distribution Process under Rule L8, the Clearing House does not have sufficient resources to meet its obligations and liabilities arising in respect of Contracts to which it is party with Non-Defaulting Clearing Members, the Clearing House shall make a further determination (an "**Insufficient Resources Determination**") that the Clearing House does not have sufficient available resources under Rule 16(a) to (g) and via the Loss Distribution Process under Rule L8 to meet its obligations and liabilities arising in respect of those Contracts to which it is party with Non-Defaulting Clearing Members, and the provisions of this Rule shall have effect.
- (b) All outstanding Contracts shall be closed out as of the business day following the date of the Insufficient Resources Determination and any further obligations to make any payments under or in respect of such Contracts shall cease. The closing prices used shall be prices calculated by the Clearing House in accordance with the methodology used by it to carry out end of day margin runs in respect of the outstanding Contracts. Where such data is not available to the Clearing House, the closing price shall be the last price used by the Clearing House to calculate the variation margin requirement for the position to be closed out.
- (c) On the basis of the close out values established for each outstanding Contract, an account shall be taken (as at the time of close out) of what is due, in respect of each Member, from that Member to the Clearing House and from the Clearing House to that Member, as well as all other amounts owing under or in respect of such Contracts and any other amounts that may be due in respect of the Service (including for these purposes, a proportionate share of any amounts owed generally to or from the Clearing House), and the sums due from the Member shall be set off against the sums due from the Clearing

House and only the balance of the account shall be payable. Amounts due in respect of such Contracts shall include, but not be limited to, returns of cash Collateral held by the Clearing House in respect of the Member's variation margin obligations and returns of Loss Distribution Charges, but shall exclude the repayment of any cash Collateral held by the Clearing House in respect of the Member's initial margin obligations or any Contributions.

To the extent that the aggregate of all of the amounts owed to the Clearing House by Members plus all of those other resources applicable to the Service under Rule 16(a) to (g) that have not been applied towards an Excess Loss is less than the aggregate of the amounts owed to Members by the Clearing House, each amount owed to Members by the Clearing House shall be reduced pro rata the shortfall.

- (d) The Clearing House shall determine any amounts due to each Member in respect of cash Collateral held by the Clearing House in respect of the initial margin obligations of the Member and outstanding Contributions to be repaid. The claim of each such Member in respect of the foregoing shall be limited to a pro rata share of the assets available to the Clearing House to satisfy those amounts.
- (e) For each Member, the amount due to it or due from it as determined pursuant to (c) above shall be aggregated with its claim determined pursuant to (d) above and only the net sum shall be payable. Where the result of such calculations is that a Member owes an amount to the Clearing House, that Member shall pay that amount to the Clearing House immediately. Where the result of such calculations is that a Member is owed an amount by the Clearing House, the Clearing House shall pay that amount to the Member immediately, subject to (g) below.
- (f) The payment of such amount to a Member pursuant to (e) above, subject to any re-calculations performed pursuant to (g) below, shall constitute the full and final payment in respect of the Service and such Member shall not be permitted to make any further claims on the Clearing House in respect of amounts relating to the Service nor shall it be permitted to notify the Clearing House of a Termination Date pursuant to Regulation 39A for a failure to pay any amounts in relation to the Service.
- (g) The Clearing House may make the payments due under (e) above in one or more instalments to the Members in proportion to the value of their claims on the Clearing House under (c) above if some but not all of the amounts due under (e) above or Rule 16(a) to 16(g) have not yet been received. The Clearing House shall take reasonable steps to recover such amounts and may deduct therefrom reasonable administration costs for such recovery. To the extent that the Clearing House determines that any such amounts will not in fact be recoverable, it shall re-determine the amounts due to Members in accordance with this Rule.
- (h) This Rule shall not be applied in the event that a Termination Date has been specified in relation to the Clearing House in accordance with Regulation 39A.
- (a) Nothing in the foregoing shall override the obligation of the Clearing House to return non-cash Collateral transferred to it in respect of initial margin pursuant to the Regulations and Procedures.

L11. Ballot Arrangements

- (a) No proposal for any of the amendments set out in paragraphs (i), (ii), (iii) or (iv) below (each a "**Listed Interest Rate Default Fund Amendment**") shall be capable of coming into effect unless first approved in a ballot of Members:
- i any amendment providing for a change in the nature of the liabilities for which a Member's indemnity is given in respect of Listed Interest Rate Business by virtue of Rule 28;
 - ii any amendment which, in the opinion of the Board of Directors of the Clearing House would represent a significant change in the commitments of the Listed Interest Rate Clearing Members but not in the commitments of any other Members;
 - iii any increase in the maximum size of the Fund Amount for the purposes of Rule L2 beyond GBP 1,500,000,000 (or such other level as has been approved in a ballot); and
 - iv any amendment to the amount of the Minimum Contribution or the definition of the Fund Floor
- (b) For the purposes of a ballot conducted pursuant to this Rule, the provisions of clauses 9.4, 9.6 and 9.7 of the Clearing Membership Agreement shall apply with the following amendments:
- i the words "major amendment to the Default Fund Rules" in the first line of clause 9.4 of the Clearing Membership Agreement shall be read as "Listed Interest Rate Default Fund Amendment";
 - ii all references to "Clearing Members" shall be read as references to "Listed Interest Rate Clearing Members";
 - iii in paragraph (c) of clause 9.4 of the Clearing Membership Agreement, the reference to "Quarter Day" shall be replaced with a reference to Determination Date, as such term is used in the Listed Interest Rate Default Fund Supplement to the Default Fund Rules;
 - iv references to "Contributions" and "Fund Amount" shall be read in accordance with the Listed Interest Rate Default Fund Supplement to the Default Fund Rules; and
 - v the reference to "clause 9.4" in clause 9.6 of the Clearing Membership Agreement shall be construed accordingly.