

	N°	Title
	V.4-3	THE SERVICE CONTINUITY AND SERVICE CLOSURE PROCESSES FOR TRIPARTY REPOS

Pursuant to Articles 4.3.3.2 and 4.3.3.3 of the Clearing Rule Book.

For the purposes of this Instruction, any reference to a Clearing Member, a Defaulting Clearing Member, a Defaulting Sponsored Member, a non-Defaulting Clearing Member or a non-Defaulting Sponsored Member shall mean a Triparty Repo Clearing Member, a Triparty Repo Defaulting Clearing Member, a Triparty Repo Defaulting Sponsored Member, a Triparty Repo non-Defaulting Clearing Member or a Triparty Repo non-Defaulting Sponsored Member respectively.

Article 1 - Scope and interpretation

For the purposes of this Instruction, the following definitions will apply:

"Available Resources" means, in respect of any Loss Distribution Period or Service Closure Period, the aggregated amount which is available to be paid by LCH SA for application in meeting any loss suffered or incurred by LCH SA in accordance with Article 4.5.2.7 (i) to (vi) (a) of the Clearing Rule Book as at and including the relevant Last Call Prior to Default.

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

"Final Determination Date" means the Clearing Day subsequent to an Insufficient Resources Determination Date when a Shortfall Allocation (as defined in Article 7 (e)(i)) is to be determined.

"Insufficient Resources Determination Date" means the day on which an Insufficient Resources Determination (as defined in Article 7) is made by LCH SA.

"Last Call Prior to Default" means the most recent Clearing Day on which payments of cover or transfers of Collateral required to be made by non-Defaulting Clearing Members or, in the case of Sponsored Members, by Participating Agent Member(s) on their behalf, to LCH SA were made in full, subject to any tolerance that LCH SA may apply..

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

"LCH Liquidation Cost" means any cost (converted, where applicable, into EUR at a Rate of Exchange determined by LCH SA in its sole discretion) to LCH SA arising out of liquidating the Net Position Exposures of a Defaulting Clearing Member.

"LCH Uncovered Loss" means, in respect of LCH SA, as determined on any Clearing Day in any Loss Distribution Period or Service Closure Period, the amount (which may never be less than zero calculated in accordance with the following formula:

$$(TUTL + CLC) - (AR + TLD)$$

where:

"TUTL" means the Total Unrealised Trading Loss ;

"CLC" means the Cumulative LCH Liquidation Cost;

"AR" means the 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 Clearing Member or each Participating Agent Member and any Loss Distribution Period, an amount equal to the contribution of such Non-Defaulting Clearing Member or Participating Agent Member, as the case may be, to the Triparty Repo Default Fund as at the last Triparty Repo Default Fund contribution determination date prior to the date when the Event of Default occurred at the beginning of that Loss Distribution Period;

"Loss Distribution Day" means any Clearing Day in a Loss Distribution Period on which LCH SA, prior to calling for cover in respect of Margin or Collateral in accordance with the Clearing Rules, on such Clearing Day, determines that the LCH Uncovered Loss for that Clearing Day is greater than zero.

"Loss Distribution Period" means the period from, but excluding, the day on which an Event of Default occurs with respect to a Clearing Member to the Clearing Day on which all Service Continuity Contributions in respect of such Event of Default have been paid in full.

"Participating Agent Member(s)" means the Agent Member(s) of a non-Defaulting Sponsored Member.

"Rate of Exchange" means, for any day, the applicable rate of exchange for converting one currency into another as determined by LCH SA by reference to commonly used price sources.

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

"Total Loss Distribution" means, as determined on the day an LCH Uncovered Loss is being determined, the sum of any Service Continuity Contribution paid by Non-Defaulting Clearing Members or, in the case of Sponsored Members, by their Participating Agent Members from but excluding the relevant Last Call Prior to Default to and excluding such day.

"Total Unrealised Trading Loss" means the net variation in value of the not yet liquidated part of the Defaulting Clearing Member's Securities given or taken as part of Triparty Repo Transactions since the last time the aggregate value of (i) the Securities (both already liquidated and not yet liquidated) and (ii) cash, given or taken by the Defaulting Clearing Member as part of Triparty Repo Transactions was equal to the Defaulting Clearing Member's Net Position Exposure.

"Triparty Repo Clearing Service" means the Clearing Service provided by LCH SA in relation to Triparty Repos,

"Triparty Repo Excess Loss" means the net sum or aggregate of net sums payable by a Defaulting Clearing Member in respect of the Triparty Repo Clearing Service less the proportion

of the Capped Amount applicable to the Triparty Repo Clearing Service under Article 4.5.2.7 (v) of the Clearing Rule Book.

Article 2 - Service Continuity Contribution

On each Loss Distribution Day, each Non-Defaulting Clearing Member, or in the case of a Sponsored Member that is a non-Defaulting Clearing Member, its Participating Agent Member(s), shall be required to pay to LCH SA a "**Service Continuity Contribution**" 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 Clearing Member's or Participating Agent Member's contribution to the Triparty Repo Default Fund bears to the aggregate contributions to the Triparty Repo Default Fund of all Non-Defaulting Clearing Members and Agent Members,

provided that, for each non-Defaulting Clearing Member or Participating Agent Member, the aggregate of all such Service Continuity Contributions over the Loss Distribution Period shall not be greater than the Loss Distribution Cap Amount for such Non-Defaulting Clearing Member or Participating Agent Member.

Any Service Continuity Contribution shall be paid by the non-Defaulting Clearing Member, or, in the case of a Sponsored Member, by its Participating Agent Member(s) to LCH SA.

Article 3 - Application of Service Continuity Contributions

LCH SA shall apply all payments it receives in respect of Service Continuity Contributions solely for the purposes of meeting any loss incurred by LCH SA following, and in relation to, each Event of Default, exceeding the resources applied as contemplated in accordance with Article 4.5.2.7 (i) to (vi) (a) of the Clearing Rule Book.

Article 4 - No Rebate or interest

The payment to LCH SA by any Clearing Member or any Participating Agent Member of any Service Continuity Contribution shall be final and shall not give rise to any obligation of LCH SA to repay any such amount or to pay any interest thereon.

Article 5 - Application of recoveries

If the Triparty Repo Loss Distribution Process has been invoked by LCH SA in accordance with Article 4.3.3.2 of the Clearing Rule Book, LCH SA shall reimburse the Clearing Members (irrespective of whether they remain Clearing Members at the time of the recovery) and Participating Agent Members and itself on a pro rata basis by reference to the resources which have been applied pursuant to Article 4.4.2.7 (i) to (vi)(a) (including any Refill Contributions to the Triparty Repo Default Fund) of the Clearing Rule Book and including the net amount of any one or more of the following amounts paid by the relevant Clearing Members or Participating Agent Members:

- (i) any amounts received from the Defaulting Clearing Member as a result of LCH SA being a creditor of the Defaulting Clearing Member in respect of the Triparty Repo business of such Defaulting Clearing Member in the context of the occurrence of any Insolvency Event of Default in respect of the Defaulting Clearing Member or otherwise, other than in respect of sums due to LCH SA for its own account; or

- (ii) any other amounts howsoever obtained or recovered in the course of LCH SA's operation of the Triparty Repo default management process (as set out in an Instruction) or which are otherwise referable to the Defaulting Clearing Member,

in each case net of any related expenses incurred by LCH SA or other sums owing to LCH SA by the Defaulting Clearing Member in connection with the Triparty Repo Clearing Service.

For the avoidance of doubt, nothing in this Article shall oblige LCH SA to pursue any litigation or other action in order to recover the amounts contemplated above and if another Default Fund of LCH SA has also been applied as a result of the Clearing Member's Event of Default, any amounts recovered shall be applied *pari passu* as between the relevant Default Funds.

Article 6 –Voluntary payments

Where, after an Event of Default in relation to one or more Clearing Members, LCH SA determines that, notwithstanding the availability of any resources remaining under Article 4.5.2.7 (i) to (vi)(a) of the Clearing Rule Book and the availability of the Triparty Repo Loss Distribution Process in accordance with the terms of Article 4.3.3.2 of the Clearing Rule Book, (i) LCH SA does not have sufficient resources to meet its obligations and liabilities arising in respect of those Triparty Repo Transactions to which it is party with non-defaulting Clearing Members or Net Position Exposure, or (ii) the Service Continuity Contribution for any non-defaulting Clearing Member or for any Participating Agent Member would be greater than the Loss Distribution Cap Amount in respect of that non-defaulting Clearing Member or that Participating Agent Member, as the case may be. LCH SA may by notice in writing (a "Triparty Repo Voluntary Payment Notice"): (i) inform all non-defaulting Clearing Members and, in respect of non-Defaulting Sponsored Members, all their Participating Agent Members, that it has insufficient resources and that it is likely to invoke Article 7 below; and (ii) invite each non-defaulting Clearing Members and, for non-Defaulting Sponsored Members, each of their Participating Agent Members to make a payment of funds (a "Triparty Repo Voluntary Payment"), in accordance with Article 4.5.2.7 (v)(c) of the Clearing Rule Book, to make up for the relevant shortfall.

Triparty Repo Voluntary Payments will be made on the following terms:

- (a) no Clearing Member and no Participating Agent Member shall be obliged to make a Triparty Repo Voluntary Payment;
- (b) any Triparty Repo Voluntary Payment will be made by a Clearing Member or by a Participating Agent by the close of business on the Clearing Day immediately following the date of receipt of the relevant Triparty Repo Voluntary Payment Notice;
- (c) no Triparty Repo Voluntary Payment may be withdrawn once made; and
- (d) LCH SA shall have full discretion whether or not to accept a particular Triparty Repo Voluntary Payment.

Any failure by LCH SA to deliver a Triparty Repo Voluntary Payment Notice pursuant to this Article 6 will not invalidate any action taken by LCH SA pursuant to Article 7 below nor give rise to any liability whatsoever on the part of LCH SA.

Any Triparty Repo Voluntary Payments remaining unused at the time of the expiry of the relevant Triparty Repo default period will be accounted for rateably by LCH SA as if they were amounts paid in respect of the Triparty Repo Default Fund contributions of those Clearing Members or of those Participating Agent Members, as the case may be, from whom Triparty Repo Voluntary Payments were accepted by LCH SA.

Article 7 –Service closure

Where, following the conclusion of the Triparty Repo Loss Distribution Process, and, as the case may be, after the expiry of the deadline for Triparty Repo Voluntary Payments following an invitation as mentioned in Article 6 above, LCH SA makes a determination (an “Insufficient Resources Determination”) that LCH SA would not in future have sufficient resources to meet its contractual obligations arising in respect of the Net Position Exposure resulting from Triparty Repo Transactions of non-defaulting Clearing Members, the following provisions shall have effect:

- (a) LCH SA will promptly notify the Clearing Members active on Triparty Repo Transactions, and, in the case of Sponsored Members, their Agent Members, and will, with immediate effect, stop accepting, directly or indirectly, and will no longer novate, any new Triparty Repo Transactions for clearing or registration in its Triparty Repo Clearing System;
- (b) LCH SA will, to the extent possible, and where relevant, instruct any CSD of Reference, ICSD and Securities settlement system, directly or indirectly, to cancel any pending settlement instructions and to stop issuing any new instructions;
- (c) All outstanding Triparty Repo Transactions or Net Position Exposures already executed and registered shall be closed out immediately at the date the Insufficient Resources Determination is made. Neither LCH SA nor any non-defaulting Clearing Member or Participating Agent Member shall be obliged to make any further payments or deliveries under any Triparty Repo Transaction between them (or between LCH SA and a non-Defaulting Sponsored Member) which would, but for this Article 7, have fallen due for performance on or after the date the Insufficient Resources Determination was made, and any obligations to make further payments or deliveries which would otherwise have fallen due with respect to such Triparty Repo Transaction shall be satisfied by settlement (whether by payment, set-off or otherwise) of the Final Net Payment (as defined below).
- (d) On the basis of the close out values established for each outstanding Triparty Repo Transaction mentioned in paragraph (c) above by LCH SA 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 Clearing Member, from that Clearing Member to LCH SA and from LCH SA to that Clearing Member in respect of such Triparty Repo Transaction and any other amounts that may be due in respect of the Triparty Repo Clearing Service, and the sums due from the Clearing Member to LCH SA shall be set off against the sums due from LCH SA to the Clearing Member and, subject to paragraph (e) below, only the net balance shall be payable. . In the case of any Sponsored Member, such close-out value shall be calculated separately in respect of the Triparty Repo Transactions of such Sponsored Member attributed to each of its Agent Members. For the avoidance of doubt, amounts in respect of such Triparty Repo Transactions shall exclude the repayment of any Initial Margin or additional Margin and amounts due in respect of the Triparty Repo Clearing Service shall include, but not be limited to, any Service Continuity Contributions payable by that Clearing Member or its Agent Member(s) pursuant to Article 2 (but shall exclude the repayment of any outstanding Triparty Repo Default Fund contributions or Refill Contributions); and
- (e) To the extent that (x) the aggregate of all of the net amounts owed to LCH SA by non-Defaulting Clearing Members and Participating Agent Members pursuant to paragraph (d), above, plus all of those other resources applicable to the Triparty Repo Clearing Service under Article 4.5.2.7 (i) to (vi) (a) of the Clearing Rule Book (excluding for these purposes assets representing Initial Margin or additional Margin of non-Defaulting Clearing Members) that have not been applied towards a Triparty Repo Excess Loss (the “**Triparty Repo 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 non-Defaulting Clearing Members and, for non-Defaulting Sponsored Members, their Participating Agent Members, based upon the proportion which that non-defaulting Clearing Member's or Participating Agent Member's contribution to the Triparty Repo Default Fund bears to the aggregate contributions to the Triparty Repo Default Fund of all non-defaulting Clearing Members and Participating Agent Members (the amount allocated to each such Clearing Member or such Participating Agent Member being the "**Shortfall Allocation**" in respect of that Clearing Member or that Participating Agent Member, as the case may be); and each Clearing Member and each Participating Agent Member shall (subject to sub-paragraph (e)(iv) below) make a new cash payment to LCH SA in respect of its Shortfall Allocation, (a "**Service Closure Payment**");
 - (ii) the Service Closure Payment owed by a Clearing Member or a Participating Agent Member (in respect of each of its non-Defaulting Sponsored Members) to LCH SA in accordance with sub-paragraphs (e)(i) above will be capped at the highest daily value of the sum of Triparty Repo Net Position Exposures registered in the non-Defaulting Clearing Member's House Margin Account(s) (or at the highest daily value of the Net Position Exposure attributed to that Participating Agent Member) and Triparty Repo Net Position Exposures registered in such non-Defaulting Clearing Member's Client Margin Accounts between the date the relevant Event of Default is declared and the Insufficient Resources Determination date (the "**Service Closure Cap Amount**");
 - (iii) for any non-Defaulting Clearing Member or Participating Agent Member for whom the Service Closure Payment as determined pursuant to sub-paragraph (e)(i) above exceeds the the Service Closure Cap Amount as determined pursuant to sub-paragraph (e)(ii) above, such excess shall be allocated amongst the other non-Defaulting Clearing Members and Participating Agent Members who have not yet reached their Service Closure Cap Amount on the basis of the proportion which each such non-Defaulting Clearing Member's or Participating Agent Member's contribution to the Triparty Repo Default Fund bears to the aggregate contributions to the Triparty Repo Default Fund of all non-Defaulting Clearing Members and Participating Agent Members who have not yet reached their Service Closure Cap Amount. This exercise will be repeated if necessary until all non-Defaulting Clearing Members and Participating Agent Members reach their Service Closure Cap Amount;
 - (iv) the Service Closure Payment owed by a Clearing Member to LCH SA in accordance with in sub-paragraphs (e)(i) and (e)(iii) above shall be set off against the sums owed by LCH SA to that Clearing Member or Participating Agent Member, as the case may be, in accordance with sub-paragraph (d) above and only the net balance shall be payable in cash by either the Clearing Member or the Participating Agent Member or LCH SA, as applicable (the "Final Net Payment").
- (f) Where a Clearing Member or Participating Agent Member owes an amount to LCH SA under Article 7(d) or if a Service Closure Payment is due by a Clearing Member or Participating Agent Member to LCH SA under Article 7 (e), that Clearing Member

or Participating Agent Member shall pay that amount to LCH SA immediately. For the avoidance of doubt, LCH SA shall be entitled to net any amounts owed to it by a Clearing Member against any cash Collateral provided by the Clearing Member to meet Margin requirements. Failure to make this payment shall constitute a Contractual Event of Default. Where a Clearing Member or Participating Agent Member is owed an amount by LCH SA under Article 7 (d), or if a Final Net Payment is due by LCH SA to the Clearing Member or the Participating Agent Member under Article 7 (e)(iv), LCH SA shall pay that amount to the Clearing Member immediately, subject to paragraph (g) below;

- (g) LCH SA may make the payments due under paragraph (f) above in one or more instalments to the Clearing Members and Participating Agent Members in proportion to the value of their claims on LCH SA under paragraphs (d) or (e) above if all of the amounts due to LCH SA under paragraph (e) above or Article 4.5.2.7 (i) to (vi) (a) of the Clearing Rule Book have not yet been received by LCH SA. No interest will be payable by LCH SA on any instalments. LCH SA may take reasonable steps to recover such amounts and may deduct therefrom reasonable administration costs for such recovery. To the extent that LCH SA determines that any such amounts will not in fact be recoverable in full, it shall re-determine the amounts due to Clearing Members and to Participating Agent Member in accordance with this Article 7. To the extent that LCH SA ultimately recovers amounts in excess of the LCH Closure Shortfall it shall return such amounts to the relevant Clearing Members (other than a Defaulting Clearing Member) and the Participating Agent Member, and to the extent that such amounts have been received as Service Closure Payments, it shall return such amounts to the Clearing Members (other than a Defaulting Clearing Member) and the Participating Agent Members in proportion to their Shortfall Allocations;
- (h) If at any stage during the operation of this Article 7 LCH SA default occurs as set out in Title 1 Chapter 4 of the Clearing Rule Book, the provisions of Title I Chapter 4 of the Clearing Rule Book shall prevail with respect to the Triparty Repo Transactions and Net Position Exposure registered in the Account Structure of the non-defaulting Clearing Members;
- (i) Nothing in the foregoing shall override the obligation of LCH SA to return non cash Collateral provided by non-defaulting Clearing Member to meet Margin requirements pursuant to the Clearing Rules. In addition, the payment in full by LCH SA of any Final Net Payment, as the case may be, to a non-defaulting Clearing Member or to a Participating Agent Member shall be final and the Clearing Member and the Agent Member shall have no further recourse to LCH SA in respect thereof.