

	N°	Title
	IV.5-5	THE CASH AND DERIVATIVES SERVICE CONTINUITY AND SERVICE CLOSURE PROCESSES

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

#### 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 (v) (a) of the Clearing Rule Book as at and including the relevant Last Call Prior to Default.

**"Cash Payment"** means, in respect of any Clearing Day, the aggregated amount which would be paid by LCH SA to a non-Defaulting Clearing Member (expressed as a positive number) or by such Clearing Member to LCH SA (expressed as a negative number) on 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 (d)(i)) is to be determined.

**"Cash and Derivatives Excess Loss"** means the net sum or aggregate of net sums payable by a Defaulting Clearing Member in respect of cash and derivatives business less the proportion of the Capped Amount applicable to the cash and derivatives clearing business under Article 4.5.2.7 (iv) of the Clearing Rule Book.

**"Cash and Derivatives Transactions"** mean Transactions on Securities and/or Derivatives Product Groups (excluding Transactions traded on MTS Italy).

**"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 required to be made by Clearing Members were made in full.

**"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 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) corresponding to the difference between the Cash and Derivatives Excess Loss as determined by LCH SA on that day and the resources mentioned in Article 4.5.2.7 (i) to (v) (a) of the Clearing Rule Book remaining available on that day.

**"Liquidity Amounts"** means the gross amounts paid or payable for borrowed or purchased assets solely to enable the physical settlement of Cash and Derivatives Transactions.

**"Loss Distribution Cap Amount"** means, in respect of each non-Defaulting Clearing Member and any Loss Distribution Period, an amount equal to the product of (i) 100 per cent.

and (ii) the contribution of such non-Defaulting Clearing Member to the cash and derivatives Default Fund as at the last cash and derivatives 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 in accordance with the Clearing Rules, 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.

**"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 Reuters.

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

For the purposes of this Instruction, any reference to a Clearing Member, a Defaulting Clearing Member, or a non-Defaulting Clearing Member shall mean a cash and derivatives Clearing Member, a cash and derivatives Defaulting Clearing Member and cash and derivatives non-Defaulting Clearing member respectively.

#### **Article 2 - Service Continuity Contribution**

On each Loss Distribution Day, each non-Defaulting Clearing Member 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 contribution to the cash and derivatives Default Fund bears to the aggregate contributions to the cash and derivatives Default Fund of all non-Defaulting Clearing Members, provided that, the aggregate of all such Service Continuity Contributions shall not be greater than the Loss Distribution Cap Amount in respect of that non-Defaulting Clearing Member, and provided such Service Continuity Contribution shall also include any Liquidity Amounts.

#### **Article 3 - Application of Service Continuity Contributions to Cash Payment**

Apart from Liquidity Amounts used to effect physical settlement in accordance with Article 2, LCH SA shall apply all payments it receives in respect of Service Continuity Contributions to Cash Payments solely for the purposes of meeting any loss incurred by LCH SA following, and in relation to, each Event of Default, as contemplated in and in accordance with Article 4.5.2.7 (i) to (v) (a) of the Clearing Rule Book.

#### **Article 4 - No Rebate or interest**

The payment to LCH SA by any Clearing 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 any recoveries**

If the Cash and Derivatives 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 LCH SA on a pro rata basis by reference to the resources which have been applied pursuant to Article 4.5.2.7 (i) to (v)(a) (including any Refill Contributions to the cash and derivatives 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:

- (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 cash and derivatives 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 cash and derivatives 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 Cash and Derivatives 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 (v)(a) of the Clearing Rule Book and the availability of the Cash and Derivatives 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 Trade Legs and Open Positions to which it is party with non-Defaulting Clearing Members, or (ii) the Service Continuity Contribution for any non-Defaulting Clearing Member would be greater than the Loss Distribution Cap Amount in respect of that non-Defaulting Clearing Member, LCH SA may by notice in writing (a "Cash and Derivatives Voluntary Payment Notice"): (i) inform all non-Defaulting Clearing Members that it has insufficient resources and that it is likely to invoke article 7 below; and (ii) invite each non-Defaulting Clearing Member to make a payment of funds (a "Cash and Derivatives Voluntary Payment"), in accordance with article 4.5.2.7 (v)(c) of the Clearing Rule Book, to make up for the relevant shortfall.

Cash and Derivatives Voluntary Payments will be made on the following terms:

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

Any failure by LCH SA to deliver a Cash and Derivatives 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 Cash and Derivatives Voluntary Payments remaining unused at the time of the expiry of the relevant cash and derivatives default period will be accounted for rateably by LCH SA as if they were amounts paid in respect of the cash and derivatives Default Fund contributions of those Clearing Members from whom Cash and Derivatives Voluntary Payments were accepted.

#### **Article 7 – Service closure**

Where, following the conclusion of the Cash and Derivatives Loss Distribution Process, and as the case may be, after the expiry of the deadline for Cash and Derivatives 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 those Trade Legs to which it is party with non-Defaulting Clearing Members resulting from Cash and Derivatives Transactions were this Article 7 not to apply, LCH SA may decide to implement the following provisions:

- (a) LCH will promptly notify the Clearing Members active on Cash and Derivatives Transactions, and will stop accepting from any Clearing Member, directly or indirectly, and will no longer novate, any new Cash and Derivatives Transactions for clearing or registration in its Cash and Derivatives Clearing System after close of business on the date the Insufficient Resources Determination is made;
- (b) All outstanding Trade Legs and Open Positions resulting from Cash and Derivatives Transactions already executed and registered shall be closed out as of the Clearing Day immediately following the date the Insufficient Resources Determination is made. Neither LCH SA nor any non-Defaulting Clearing Member shall be obliged to make any further payments or deliveries under any Trade Leg and Open Position between them which would, but for this Article 7, have fallen due for performance on or after the date the Insufficient Resources Determination was made. The closing prices used shall be (i) for cash Transactions the relevant closing prices published by Euronext, and (ii) for Derivatives Transactions, the fair value communicated by Euronext. Where such data is not available to LCH SA, the closing price shall be the last price used by LCH SA to calculate the Variation Margin requirement for the Open Position to be closed out.
- (c) On the basis of the close out values established for each outstanding cash and derivatives Trade Leg and Open Position mentioned in (b) above by LCH SA, 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 Trade Legs and Open Positions resulting from Cash and Derivatives Transactions and any other amounts that may be due in respect of the cash and Derivatives clearing service (including for these purposes, a proportionate share of any amounts owed generally to or from LCH SA pursuant to the Clearing Rules), 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 (d) below, only the net balance of the account shall be payable. For the avoidance of doubt, amounts in respect of Trade Legs and Open Positions resulting from Cash and Derivatives Transactions shall include, but not be limited to, returns of Variation Margin (but shall exclude the repayment of any Initial or Additional Margin) and amounts due in respect of the Cash and Derivatives Clearing Service shall include, but not be limited to, any Service Continuity Contributions payable by that Clearing Member pursuant to Article 2 (but shall exclude the repayment of any outstanding cash and derivatives Default Fund contributions and Refill Contribution).

(d) To the extent that (x) the aggregate of all of the net amounts owed to LCH SA by Clearing Members pursuant to paragraph (c), above, plus all of those other resources applicable to the Cash and Derivatives Clearing Service under Article 4.5.2.7 (i) to (v) (a) of the Clearing Rule Book (excluding for these purposes assets representing Initial or Additional Margin of non Defaulting Clearing Members) that have not been applied towards a Cash and Derivatives Excess Loss 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 Clearing Members based upon the proportion which that non-Defaulting Clearing Member's contribution to the cash and derivatives Default Fund bears to the aggregate contributions to the cash and derivatives Default Fund of all non-Defaulting Clearing Members (the amount allocated to each such Clearing Member being the "Shortfall Allocation" in respect of that Clearing Member); and each Clearing Member shall (subject to sub-paragraph (d) (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 to LCH SA in accordance with in sub-paragraph (d)(i) above will be subject to a cap amount (the "**Service Closure Cap Amount**" or "**SCCA**") determined as follows :

$SCCA = \text{Cash Cap Amount} + \text{Derivatives Cap Amount}$

where:

Cash Cap Amount is the highest daily value of the sum of cash Open Positions registered in the non-Defaulting Clearing Member's House Margin Account(s) and cash Open Positions 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; and

Derivatives Cap Amount is determined as follows :

$\text{Derivatives Cap Amount} = \text{Futures Result} + \text{Options Result}$

where:

Futures Result is the sum of any net cumulative Variation Margin (Variation Margin received by the non-Defaulting Clearing Member less Variation Margin paid by the non-Defaulting Clearing Member in relation to its futures Transactions) from the date of the relevant Event of Default until the date of calculation of the Service Closure Payment and of the close-out value of such non-Defaulting Clearing Member's futures Client Open Positions and futures House Open Positions ; and

Options Result is determined as follows :

Options Result = (A) Value (positive or negative) at the date of determination of the Service Closure Payment of the non-Defaulting Clearing Member's Options Client Open Positions and Options House Open Positions, as determined pursuant to paragraph 7(c) above, less (B) net option value (positive or negative) of the non-Defaulting Clearing Member's Options Client Open Positions and

options House Open Positions at the date of the relevant Event of Default, plus (C) Option premia received (positive) or paid (negative) by the non-Defaulting Clearing Member since the date of the relevant Event of Default and (D) the profit and loss of exercise/assignment of Options since the date of the relevant Event of Default;

Where :

If negative, the Derivatives Cap Amount will be deemed to be zero.

- (iii) For any non-Defaulting Clearing Member for whom the Service Closure Payment as determined pursuant to sub-paragraphs (d)(i) above exceeds the Service Closure Cap Amount as determined pursuant to sub-paragraphs (d)(ii), such excess shall be allocated amongst the other non-Defaulting Clearing 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 contribution to the cash and derivatives Default Fund bears to the aggregate contributions to the cash and derivatives Default Fund of all non-Defaulting Clearing Members who have not yet reached their Service Closure Cap Amount. This exercise will be repeated if necessary until all non-Defaulting Clearing Members reach their Service Closure Cap Amount;
- (iv) the Service Closure Payment owed by a Clearing Member to LCH SA in accordance with sub-paragraphs (d)(i) and (d)(iii) above shall be set off against the sums owed by LCH SA to that Clearing Member in accordance with sub-paragraph (d) above and only the net balance shall be payable in cash by either the Clearing Member or LCH SA, as applicable (the "**Final Net Payment**"); and
- (e) Where a Clearing Member owes an amount to LCH SA under paragraph (c) or if there is an LCH Closure Shortfall under paragraph (d), that Clearing Member shall pay that amount to LCH SA immediately. Failure to make this payment shall constitute a Contractual Event of Default. Where a Clearing Member is owed an amount by LCH SA under Article 7 (c) or if a Final Net Payment is due by LCH SA to the Clearing Member under Article 7 (d)(iv),, LCH SA shall pay that amount to the Clearing Member immediately, subject to (f) below.
- (f) LCH SA may make the payments due under paragraph (e) above in one or more instalments to Clearing Members in proportion to the value of their claims on LCH SA under paragraphs (c) or (d) above if some but not all of the amounts due under paragraph (e) or Article 4.5.2.7 (i) to (v) (a) of the Clearing Rule Book have not yet been received. 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, it shall re-determine the amounts due to Clearing Members 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 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) in proportion to their Shortfall Allocations.
- (g) Nothing in the foregoing shall override the obligation of LCH SA to return Initial Margin provided by way of security to a Clearing Member pursuant to the Clearing Rules.