

# SUBMISSION COVER SHEET

Registered Entity Identifier Code (optional) LCHLTD Date: April 15, 2013

**IMPORTANT: CHECK BOX IF CONFIDENTIAL TREATMENT IS REQUESTED.**

**ORGANIZATION** LCH.Clearnet Limited

**FILING AS A:**  DCM  SEF  DCO  SDR   
ECM/SPDC

## TYPE OF FILING

- **Rules and Rule Amendments**

- Certification under § 40.6 (a) or § 41.24 (a)
- “Non-Material Agricultural Rule Change” under § 40.4 (b)(5)
- Notification under § 40.6 (d)
- Request for Approval under § 40.4 (a) or § 40.5 (a)
- Advance Notice of SIDCO Rule Change under § 40.10 (a)

- **Products**

- Certification under § 39.5(b), § 40.2 (a), or § 41.23 (a)
- Swap Class Certification under § 40.2 (d)
- Request for Approval under § 40.3 (a)
- Novel Derivative Product Notification under § 40.12 (a)

## RULE NUMBERS

FCM Procedures Section 2A.8.4  
Clearing House Procedures 2C.8.6

## DESCRIPTION

Self-certification pursuant to §40.6(a) relating to changes to implement SwapClear’s Strategic Initial Margin methodology.

**Via Electronic mail**

April 15, 2013

Ms. Melissa Jurgens  
Secretary of the Commission  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21<sup>st</sup> Street, N.W.  
Washington, DC 20581

**RE: Changes to LCH.Clearnet Limited Initial Margin Model for SwapClear**

Dear Ms. Jurgens:

Pursuant to §40.6(a) of the Commission Regulations, LCH.Clearnet Limited (“LCH.Clearnet”), a derivatives clearing organization registered with the Commodity Futures Trading Commission (the “CFTC”), hereby submits for self-certification amendments to LCH.Clearnet’s Rulebook relating to changes to the Initial Margin Methodology utilized by its SwapClear service. The amended Rulebook will be implemented and become effective on or before May 17, 2013.<sup>1</sup>

**Part I: Explanation and Rationale for the Amendments**

LCH.Clearnet is making these changes as part of its ongoing review of its margin methodologies to ensure optimal performance under a variety of market conditions, and to further enhance the SwapClear risk models. The changes will also serve to maintain the balance between the ‘defaulter pays’ approach and the mutualization of losses in the SwapClear default waterfall. In order to best achieve the benefits of these changes, LCH.Clearnet is planning to implement changes to the VaR model for SwapClear no later than the close of business on Friday May 17<sup>th</sup> and in accordance with CFTC regulation §40.6(a).

**Description of Changes**

LCH.Clearnet currently uses the PAIRS VaR methodology as the primary model for SwapClear Initial Margin, with the modifications outlined in the certification under Rule 40.6(a) made on January 22, 2013<sup>2</sup>. SwapClear will continue to utilize PAIRS as its primary model, but will make the following further changes to its current PAIRS algorithm<sup>3</sup>:

(a) the historic time period used to calculate initial margins will increase from 5 years to 10 years, with an associated recalibration of the number of observations taken into account in calculating expected shortfall and the decay factor ( $\lambda$ ) in the exponentially weighted moving average (EWMA) volatility estimate;

(b) recalibration and simplification of the liquidity risk multipliers in line with (a) above;

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<sup>1</sup> Subject to regulatory approval by the Bank of England

<sup>2</sup> LCH.Clearnet notes that this submission was certified by the Commission on 01/22/2013

<sup>3</sup> PAIRS stands for Portfolio Approach to Interest Rate Scenarios (PAIRS) and is LCH.Clearnet’s acronym for the underlying quantitative methodology

(c) a margin add-on will be added in respect of tenor basis risk add-ons.

These modifications are the second and final step in the implementation of the new SwapClear initial margin model and associated move from relative to absolute shifts. This will ensure a better balance between defaulter pays approach and the mutualization of losses in the default waterfall in a range of interest rate environments. LCH.Clearnet has conducted extensive testing of the new methodology to validate its confidence that the change to absolute returns will continue to perform in both low and high interest rate environments, which demonstrated that the model continued to perform to expectation under various scenarios<sup>4</sup>.

Although there are a number of amendments to the model, many aspects remain unchanged. Holding period assumptions remain constant for SwapClear at 5 days for house accounts and 7 days for clients. The methodology also retains the existing standard deviation scaling parameters applied at a risk factor level, applies the same correlation assumptions and utilizes one-tailed scenario generation.

## **Part II: Amendments to the Rules & Regulations of LCH.Clearnet**

The changes detailed above relate primarily to internal SwapClear policy. However, a minor change to the LCH.Clearnet Procedures has been made to include a reference to the inclusion of tenor basis risk margin add-ons. These changes are reflected in an amendment to Section 2C.8.6 to the Clearing House Procedures and in an identical amendment to the FCM Procedures to Section 2A.8.4<sup>5</sup>. These changes are reflected in the blacklined version of the relevant documents, which are attached hereto as Exhibits A & B, respectively.

In addition to these changes, LCH.Clearnet intends to issue a SwapClear Circular to ensure that all affected parties are aware of the changes. The draft Circular is attached as Exhibit C.

## **Part III: Certification by LCH.Clearnet**

LCH.Clearnet certifies to the CFTC, in accordance with CFTC Regulation §40.6, that the planned changes comply with the Commodity Exchange Act and the CFTC Regulations promulgated thereunder. LCH.Clearnet further certifies that, upon the submission of this material, in compliance with §39.21 of the Commission's regulations, LCH.Clearnet will post a notice of pending certification with the CFTC and a copy of the submission on LCH.Clearnet's website at

[http://www.lchclearnet.com/rules\\_and\\_regulations/ltd/proposed\\_rules.asp](http://www.lchclearnet.com/rules_and_regulations/ltd/proposed_rules.asp)

## **Part IV: Compliance with Core Principles**

LCH.Clearnet will continue to comply with all Core Principles following the introduction of these proposed changes in methodology. LCH.Clearnet has concluded that its compliance with Core Principles would not be adversely affected by these changes. The changes reflected herein will ensure continued compliance with the Core Principles and, in particular, with Core Principle D.

## **Part V: Opposing Views**

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<sup>4</sup> LCH.Clearnet notes that the model it intends to utilize has been validated by its external advisers, and that evidence of that review was submitted to CFTC Staff under separate cover pursuant to a Request for Confidential Treatment on 1/16/13

<sup>5</sup> Both changes also required changes to pagination, which is reflected in the blackline versions

There were no opposing views expressed to LCH.Clearnet by its governing board or committee members, members of LCH.Clearnet or market participants that were not incorporated into the planned changes.

**Certification**

LCH.Clearnet Limited hereby certifies to the Commodity Futures Trading Commission, pursuant to the procedures set forth in Commission regulation §40.6, that the attached rule submission complies with the Commodity Exchange Act, as amended, and the regulations promulgated thereunder.

Should you have any questions regarding this submission please contact me at at [jay.iyer@lchclearnet.com](mailto:jay.iyer@lchclearnet.com)

Sincerely yours,

A handwritten signature in black ink, appearing to be 'Jay Iyer', written over a faint, illegible printed name.

**Jay Iyer, Chief Compliance Officer  
LCH.Clearnet Limited**

cc:

**Dennis McLaughlin, LCH.Clearnet  
Gordon Alexander, LCH.Clearnet  
Kenji Takaki, CFTC  
Adam Cohen, CFTC**

Exhibit A

through PPS facilities in the USA (see section 3.2.2). **Members must ensure, in these circumstances, that they are in a position to fund such calls through their nominated US PPS account within one hour of the call.**

## 2C.8.5 Calculation of Initial Margin

### 2C.8.5.1 Portfolio Approach to Interest Rate Scenarios (PAIRS)

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

### 2C.8.6 Tenor Basis Risk Margin Add-on

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

## 2C.9 INTRA-DAY MARGIN CALL: COLLATERAL MANAGEMENT

### 2C.9.1 General – Intra-day Margining

Following an intra-day margin call and unless notified otherwise by an SCM at the time of an intra-day margin call the Clearing House will deduct cash, in the appropriate currency, directly from the relevant SCM's PPS account to cover that intra-day margin call.

Standard Clearing House rules for acceptable cash used for intra-day cover will apply.

It is the responsibility of the SCM to ensure that they have sufficient cash funds in place with their PPS Bank(s) in order to avoid any intra-day liquidity issues.

If the Clearing House is unable to contact the SCM in order to arrange an alternative payment method for the intra-day margin call the Clearing House will automatically issue a PPS call to debit the SCM's PPS account in the appropriate currency.

Please note: An SCM must notify the Clearing House of its preferred method of collateralisation at the time of the Clearing House's margin call. Once an SCM has chosen an intra-day collateralisation method and has notified the Clearing House of its chosen method, such choice is definitive and the Clearing House will not reverse any decision.

### 2C.9.2 Alternative Intra-Day Cash Collateralisation Methods

An SCM may choose to cover its intra-day, margin calls by transferring cash from its House account or Additional Collateral Account to its Client Account.

#### 2C.9.2.1 Method 1: Transferring Cash Collateral from the House Account

An SCM may choose to transfer excess cash collateral from its House account to cover an intra-day margin call for its Client account.

Exhibit B

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Exhibit C

Draft

**SwapClear Circular No [ ]**

**Date: May xx, 2013**

**To: All SwapClear Clearing Members & SwapClear FCMs**

**Re: Changes to the SwapClear Margin Methodology**

In February 2013, LCH.Clearnet Limited introduced a number of changes to its Initial Margin methodology for its SwapClear service. Those changes, referred to as “tactical” in nature, involved the following changes to the LCH.Clearnet PAIRS<sup>6</sup> algorithm:

- (a) altering the interest rate risk factor returns from relative to absolute returns;
- (b) moving from a value at risk (VaR) measure to an expected shortfall (ES) measure;
- (c) adjustments to the chosen decay factor ( $\lambda$ ) in the exponentially weighted moving average (EWMA) volatility estimate.

As previously communicated during the SwapClear Programme Update, in order to complete the second strategic phase of the change to its Initial Margin methodology and associated move from relative to absolute shifts, SwapClear will make the following further changes to the PAIRS algorithm:

- (a) the historic time period used to calculate initial margins will increase from 5 years to 10 years, with an associated recalibration of the number of observations taken into account in calculating expected shortfall and the decay factor ( $\lambda$ ) in the exponentially weighted moving average (EWMA) volatility estimate;
- (b) recalibration and simplification of the liquidity risk multipliers in line with (a) above;
- (c) a margin add-on will be added in respect of tenor basis risk add-ons.

These changes will be implemented on April / May xx, 2013. Should you have any questions or wish to discuss these changes, please contact [your member services representative.]

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<sup>6</sup> PAIRS stands for Portfolio Approach to Interest Rate Scenarios (PAIRS) and is LCH.Clearnet’s acronym for the underlying quantitative methodology