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**LCH SA (the "Clearing House" or "LCH SA")
Disclosure for Purposes of Article 39(7) of Regulation (EU) No 648/2012
of the European Parliament and the Council of 4 July 2012
on OTC Derivatives, Central Counterparties, and Trade Repositories ("EMIR")**

Terms not otherwise defined in this Disclosure Requirement have the meanings ascribed to them in the CDS Clearing Rule Book (the "**CDS Rule Book**") and/or the cash equities, fixed income and triparty repos Clearing Rule Book (the "**Clearing Rule Book**") (together, the "**Rule Books**").

1. Introduction

This information is provided in accordance with the requirement under Article 39(7) of EMIR for a central counterparty (a "**CCP**") (such as the Clearing House) to disclose publicly certain information in relation to the levels of protection and account segregation which it provides (the "**Disclosure Requirement**").

This Disclosure Requirement purports to give information on the levels of protection and account segregation in relation to:

- LCH SA's clearing service for securities (the "**Cash Clearing Service**") and fixed income products (including Triparty Repo service) (the "**Fixed Income Clearing Service**") which is documented in the Clearing Rule Book and its related Instructions and Notices; and

- LCH SA's clearing platform for credit default swaps (“**CDS**”) and options on CDS (the "**CDS Clearing Service**") which is documented in the CDS Rule Book, its related Procedures and the CDS Clearing Supplement.

The CDS Clearing Service operates two different clearing services depending on the regulatory status of the Clearing Member: one in respect of Clearing Members which are futures commission merchants ("**FCMs**") that are registered with the U.S. Commodity Futures Trading Commission ("**CFTC**") and are brokers or dealers ("**BDs**") that are registered with the U.S. Securities and Exchange Commission (“**SEC**”) and one in respect of all other Clearing Members.

Each of the Cash Clearing Service, the Fixed Income Clearing Service and the CDS Clearing Service are hereinafter referred to as a "**Service**".

2. Account Arrangements – Segregation

2.1 *The segregation principle*

Under Article 39(2) and Article 39(3), respectively, of EMIR, a CCP is required to offer the choice between omnibus client segregation and individual client segregation.

There are two broad types of accounts reflecting this EMIR segregation requirement:

- the accounts which apply the omnibus client segregation as set out in paragraph 2.3 below (each an "**Omnibus Segregated Account**" or "**OSA**"); and
- the accounts which apply the individual client segregation as set out in paragraph 2.4 below (each an "**Individual Segregated Account**" or "**ISA**").

In addition to offering OSAs and ISAs, and in respect of the CDS Clearing Service only, the Clearing House also offers to FCM/BD Clearing Members two types of account:

- an account type that complies with the CFTC rules and regulations – "**LSOC Account**" (the acronym LSOC meaning "legally segregated, operationally commingled" accounts), where transactions qualifying as “swaps” are held; and
- an account type that complies with the U.S. Securities Exchange Act of 1934 and the SEC rules and regulations, where transactions qualifying as “security-based swaps” (“**SBS**”) are held – "**SBS Account**",

as set out in paragraph 2.5 below, the LSOC Account and the SBS Account being hereinafter referred to as the "**FCM/BD Client Accounts**".

Unless otherwise required by one of its Clients, a Clearing Member might open a single OSA with a CCP for the account of all of its Clients. Such an arrangement would be consistent with the requirements for omnibus client segregation under EMIR. However, under Article 39(5) of EMIR, a Clearing Member is required to offer its Clients, at least, the choice between omnibus client segregation and individual client segregation and, in practice, an individual Clearing Member may open a number of OSAs and a number of ISAs with a single CCP.

2.2 *Segregation of client positions and assets from house positions and assets*

ISAs, OSAs and FCM/BD Client Accounts are subject to the same following segregation requirement: client positions and assets are separated from proprietary/house positions and assets and the boundary demarcating what is segregated is at the account level. Hence, positions and assets are pooled within the relevant account but ring-fenced from those held in any other account with the CCP.

However, ISAs, OSAs and FCM/BD Accounts are subject to different segregation arrangements as between Clients (as set out in paragraphs 2.3 to 2.5 below).

2.3 *Segregation arrangements as between Clients or Indirect Clients in respect of OSAs*

Omnibus client segregation involves a demarcation between, on the one hand, a Clearing Member's proprietary positions and assets and, on the other hand, the positions and the assets held by the Clearing Member for the account of its Clients. Multiple Clients, or indirect clients to whom Clients are providing clearing services (each an “**Indirect Client**”), can be grouped together in an OSA with the CCP and that there is a mutualisation of losses and a pooling of risk:

- in terms of exposures relating to positions, between the Clients or Indirect Clients sharing:
 - (i) the same Net Omnibus Segregated Account Structure; or (ii) the same Margin Account in a Gross Omnibus Segregated Account Structure; and
- in terms of exposures relating to the application of assets covering the positions, between the Clients or Indirect Clients sharing that OSA.

2.4 *Segregation arrangements as between Client in respect of ISAs*

In contrast to omnibus client segregation, individual client segregation involves a demarcation between the positions and assets held by a Clearing Member for the account of one Client from the positions and the assets held for the account of other Clients and from the Clearing Member's own positions and assets. Therefore, individual client segregation is offered on a per Client basis – no individually segregated Client is exposed to, or has its assets applied in respect of, the positions of any other Client or of the Clearing Member.

2.5 *Segregation arrangements as between Clients in respect FCM/BD Client Accounts*

Both the LSOC Account and SBS Account models are subject to similar segregation requirements in accordance with the relevant US applicable law and regulations.

The FCM/BD Clearing Member is required to identify the positions of its clients and to treat the post-haircut value of collateral required in respect of contracts entered into on behalf of a client as belonging to such client. Furthermore, the FCM/BD Clearing Member is not permitted to use such value to margin, guarantee or secure the obligations of the FCM or of any other client. The FCM/BD Clearing Member is however permitted to operationally commingle collateral belonging to its clients in an omnibus account in the FCM/BD Client Account Structure at the Clearing House.

Under both models, the initial margin requirements for client contracts are calculated gross. In addition, the value of collateral delivered in respect of initial margin requirements in respect of a client can only be used to cover losses relating to that client's positions and is therefore not subject to "fellow customer risk". However, in contrast to the ISA model, the FCM/BD Client

Accounts operate on a post-haircut value basis rather than assigning specific collateral assets to a specific client. Accordingly, collateral assets delivered by the FCM/BD Clearing Member to the Clearing House in respect of client positions are not attributed to particular clients.

Furthermore, under both models, variation margin payments are settled net and are not segregated. Accordingly, specific clients with variation margin gains participating in an account in respect of which there is a net margin loss (across all relevant clients of the relevant FCM/BD Clearing Member) do not have recourse to the Clearing House in respect of their gains and are therefore subject to "fellow customer risk" for variation margin.

2.6 *Service specific segregation*

The account arrangements within the Clearing House provide for further division between accounts along product lines, meaning that omnibus client segregation and individual client segregation is offered to Clearing Members on behalf of their Clients on a per Service basis. Hence, a Clearing Member might have a particular combination of one or more OSAs and/or one or more ISAs in respect of one Service and a different combination of Client accounts in respect of another Service.

The balance of OSAs and ISAs held by a Clearing Member in respect of a particular Service will, in part, be driven by characteristics of the Service itself. In addition, the profile of the Clearing Member, the nature and volume of Clients in question and, most importantly, the level of segregation required by those Clients will also be key factors.

In respect of the CDS Clearing Service for FCM/BD Clearing Members, each FCM/BD Clearing Member will hold only one LSOC Account (referred to as the "FCM/BD Swaps Client Account Structure" in the CDS Rule Book) and/or one SBS Account (referred to as the "FCM/BD SBS Client Account Structure" in the CDS Rule Book).

3. **Account Arrangements – OSAs, ISAs and FCM/BD Client Accounts**

This section summarises the arrangements and features which characterise the different account types offered by the Clearing House. In particular, it outlines the relevant types of account structure, how margin requirements will be calculated in respect of each such type of account structure and how each such type of account structure will be treated in the event of a default by the relevant Clearing Member. In addition, the table in Schedule 1 (*Summary of Account Structure Types and Functionality*) provides a high level summary of certain key features relating to the different account structure types.

3.1 *Omnibus Segregated Accounts structure (OSAs)*

(a) Types of OSAs

The Clearing House offers two different types of OSAs (which may be used by a Clearing Member in isolation or in any combination) with different levels of mutualisation of risk:

(i) the Net Omnibus Segregated Account Structure (the "NOSA");

A NOSA consists in calculating and recording the Clients' margin requirements on a net basis, and commingling the corresponding collateral, in respect of all the Clients belonging to the same NOSA.

A NOSA is also opened in respect of several Clients of a Clearing Member (1) who are each providing clearing services to their own clients (*i.e.* Indirect Clients); and (2) whose identities are not required to be recorded by the Clearing House in accordance with its rules and procedures. This account is offered in accordance with EU Regulation No 600/2014 of 14 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012 and any delegated act or any regulatory technical standards or implementing standards made thereunder (“**MiFIR**”).

(ii) the Gross Omnibus Segregated Account Structure (the "**GOSA**").

A GOSA consists in calculating the Clients' margin requirements on a gross basis, and commingling the corresponding collateral in respect of all Clients belonging to the same GOSA.

A GOSA is also opened in respect of a single Client (1) who is providing clearing services to its own clients (*i.e.* Indirect Clients); and (2) whose identity is required to be recorded by the Clearing House in accordance with its rules and procedures. This account is offered in accordance with MiFIR.

(b) Calculation of margin requirements

In respect of a NOSA

The Clearing House calculates the margin requirements related to the positions recorded in the relevant NOSA on a net basis and call the Clearing Member for a single amount of collateral in respect of all Clients belonging to such NOSA. Collateral received by the Clearing House will be recorded in the relevant NOSA held for the account of the relevant Clients collectively and without attribution of specific collateral assets to specific Clients. As a result, there is a mutualisation of loss and a pooling of risk between the Clients in terms of differentials between (i) the performance of the Clients/ Indirect Clients' respective positions; and (ii) the relative quality and haircut value of the collateral provided by the Clearing Member for the account for the Clients/ Indirect Clients belonging to the same NOSA.

In respect of a GOSA

The Clearing House will calculate the gross margin requirements in respect of the positions recorded in the relevant GOSA and call the Clearing Member for an amount of collateral in respect of: (i) the positions of each Client (or Indirect Clients as the case may be) or, alternatively; (ii) the positions (on a net basis) of the Clients grouped together and belonging to the same Margin Account within the GOSA for the purposes of margining of positions. A group of Clients is treated as a unit (as if the Clients comprising the relevant group were, collectively, a single Client) and therefore are not segregated on a per-Client basis. This means that there is no mutualisation of loss and no pooling of risk between an individual Client/ Indirect Client and/or groups of Clients recorded in different Margin Accounts. However, there may be a mutualisation of loss and pooling of risk between Clients recorded in the same Margin Account of a GOSA.

Collateral received by the Clearing House in respect of a GOSA will be recorded in the account on a shared basis, *i.e.* without attribution of specific collateral assets to specific Clients/ Indirect Clients. As a result, there will be a mutualisation of losses between the Clients/Indirect Clients of a single GOSA in respect of the relative quality and haircut value of the collateral provided by the Clearing Member for the account for the Clients/ Indirect Clients.

(c) Default and porting

The purpose of porting is to enable the Clearing House, upon a Clearing Member's default, to transfer Clients/ Indirect Clients' positions and associated collateral to a backup Clearing Member. By this process, there is continuity in the provision of client clearing services to the relevant Clients/ Indirect Clients and the Clients/ Indirect Clients' positions and associated collateral are not affected by the insolvency proceedings opened against the defaulting Clearing Member.

The Clients may face mutualised losses following a default of their Clearing Member. In these circumstances, the Clearing House would, in an exercise of its powers under the Rule Books seek to port the positions and associated collateral (or, as the case may be, a cash value of such collateral) recorded in the relevant OSA to a backup Clearing Member.

Porting will only be successful if:

- in respect of a NOSA: all of the Clients (including the relevant Clients providing clearing services to Indirect Clients) comprising the NOSA consent to the porting and nominate the same backup Clearing Member. In respect of the CDS Clearing Service only, porting is not available for a NOSA opened for Clients providing clearing services to Indirect Clients; or
- in respect of a GOSA: all Clients sharing the same Margin Account, or the Client providing clearing services to Indirect Clients, consent(s) to the porting and nominate the same backup Clearing Member.

In every such case, however, porting will only be possible where each backup Clearing Member accepts the positions to be ported to it. Porting will only occur in circumstances where (at the time of porting) the identity(ies) of the Client(s) for the benefit of which the OSA is opened is/are formally recorded by the Clearing House in accordance with its procedures, and where the Clearing House has formally received a porting request from such Clients in the manner and form as prescribed by the Clearing House.

If porting occurs, the segregation arrangements and levels of protection associated with the original OSA with the defaulting Clearing Member will be replicated in an OSA with the backup Clearing Member.

If porting is not desired or cannot be achieved, the Clearing House will liquidate the relevant Clients/ Indirect Clients' positions and associated collateral held in the OSA and calculate a residual amount attributable to each Client/ Indirect Clients after

liquidation (a "**Client Clearing Entitlement**")¹. The Client Clearing Entitlement represents the Client/ Indirect Client's entitlement to amounts due in respect of the liquidation values of the positions and associated collateral, after deducting certain amounts including in particular the costs of hedging of the relevant positions, and (i) in the case of a NOSA, any amounts due to the Clearing House in respect of other positions held (for the account of other Clients/ Indirect Clients) in the same NOSA; or (ii) in the case of each group of Clients sharing the same Margin Account, any amounts due to the Clearing House in respect of other positions held on behalf of other Clients in the same group, pro rated in both such cases between the relevant Clients. Here again, the Clients would face mutualised losses in respect of the liquidation values of the positions and the application of the collateral to such positions. .

The Clearing House would return Client Clearing Entitlements directly to the relevant Clients, if such Clients are known to it². Otherwise, Client Clearing Entitlements will be returned to the defaulting Clearing Member's insolvency officer for the account of the relevant Clients.

3.2 *Individual Segregated Accounts structure (ISAs)*

In contrast to the segregation arrangements described in relation to OSAs, an ISA structure holds the positions entered into, and the associated collateral delivered by, a Clearing Member in respect of an individual Client. Hence, there is no mutualisation of risk or pooling of collateral between different Clients of the same Clearing Member.

(a) Calculation of margins requirements

The Clearing House will calculate the margin requirements in respect of all of the positions recorded in the relevant ISA and call for margins from the Clearing Member accordingly. Collateral received by the Clearing Member will be recorded as being held in the relevant ISA for the account of the relevant Client. By virtue of these arrangements, an individually segregated Client is not exposed to fluctuations in the value of others' positions or losses on those positions upon the default of a Clearing Member. In addition, the specific items of collateral originally provided by the Client to the Clearing Member are attributed to it within the Clearing House and will not be applied to cover exposures on positions held by the Clearing Member on a proprietary basis or for the account of other Clients.

(b) Default and porting

Upon the default of a Clearing Member, the Clearing House would seek to port the positions and the associated collateral (or, as the case may be, a cash value in respect of such collateral) recorded in the relevant ISA to a backup Clearing Member. Such a porting will only be successful if the backup Clearing Member accepts such a porting.

¹ The defined term "Client Clearing Entitlement" is hereby used for the ease of reading of this statement only; for the avoidance of doubt, the constitutive elements which this term covers are substantially similar for both the CDS Clearing Service and the Cash and Fixed Income Clearing Services.

² The Clients would be deemed to be "known" to the Clearing House when the Clearing House has all the information (such as the Clients' account details) which it needs to effectively transfer an amount equal to the Client Clearing Entitlement.

If porting is not desired by a Client or cannot be achieved, the Clearing House will liquidate the Client's positions and associated collateral and calculate the Client Clearing Entitlement related to the relevant ISA. As part of the calculation, deductions are made for losses associated with the Client's positions and the costs of hedging those positions.

The Clearing House would return Client Clearing Entitlements directly to the relevant Clients, if such Clients are known to it³. Otherwise, Client Clearing Entitlements will be returned to the defaulting Clearing Member's insolvency officer for the account of the relevant Clients.

3.3 *FCM/BD Client Accounts in the CDS Clearing Service*

The Clearing House shall open and maintain for each FCM/BD Clearing Member, within its books and records the accounts comprising the FCM/BD Client Account Structure, as follows:

- the LSOC Account (referred to as the “FCM/BD Swaps Client Account Structure” in the CDS Rule Book) where cleared swaps will be registered, including SBS that are permitted to be held with cleared swaps in accordance with the portfolio margining program offered by the Clearing House in the conditions set out in the CDS Clearing Rules; and/or
- the SBS Account (referred to as the “FCM/BD SBS Client Account Structure” in the CDS Rule Book) where SBS will be registered (excluding the SBS for which the FCM/BD Clearing Member has elected to clear them in an LSOC Account).

The LSOC Account and SBS Account models rely on the maintenance of accounts at both:

- the Clearing House level; and
- in respect of the LSOC Account, at a “Permitted Depository” (*i.e.* a depository which is permitted to hold client collateral pursuant to CFTC Regulations) or in respect of the SBS Account, at a “Bank” (*i.e.* a bank which is permitted to hold client collateral pursuant to the U.S. Securities Exchange Act of 1934).

The purpose and functions of these accounts are summarised below.

(a) The FCM/BD Client Account Structure

In respect of each FCM/BD Clearing Member joining the CDS Clearing Service, the Clearing House opens an FCM/BD Swaps Client Account Structure and/or, upon request from the FCM/BD Clearing Member, an FCM/BD SBS Client Account structure, each of which is made up of book-entry accounts that record the positions and associated collateral attributable to each Client.

The LSOC Account for FCM/BD Clearing Members has been set up to comply with the CFTC regulatory requirements regarding the "Without Excess Model". Under the "Without Excess Model", there is no ability to hold or attribute a collateral value in excess of the margin requirement in respect of the positions recorded to a Margin Account of an individual Client. Accordingly, the value of collateral attributable to the relevant Margin Account will be the amount required to meet the margin obligations in

³ Same comment as in footnote 2.

respect of the positions recorded to an account. Any collateral value in excess of the required margin value will be recorded in an FCM/BD Swaps Unallocated Client Collateral Financial Account prior to the Morning Call held for the benefit of all the clients in the FCM/BD Swaps Client Account Structure. Therefore, an FCM/BD Clearing Member may hold excess collateral related to Client accounts on an intraday basis only.

The SBS Account model offered by LCH SA is similar to the LSOC Account without excess model and as a result, the collateral value in excess of the required margin value will be recorded in an FCM/BD SBS Client Excess Collateral Financial Account prior to the Morning Call held for the benefit of all the clients in the FCM/BD SBS Client Account Structure. Any collateral value in excess of the required margin value related to any Client accounts may be used on an intraday basis only.

(b) Accounts opened at the Permitted Depository and at the Bank

The Clearing House is required to segregate (deposit) all collateral provided in respect of Clients' positions and all monies accruing in respect of such positions in an account maintained with a Permitted Depository for an LSOC Account and a Bank for an SBS Account.

The collateral deposited in such accounts will represent collateral delivered by all FCM/BD Clearing Members on behalf of their Clients and are held on a commingled basis. However, the value of such collateral attributable to an individual Client will be indicated in the relevant FCM/BD Client Financial Account held on behalf of the relevant Client.

(c) Default and porting

Upon the default of an FCM/BD Clearing Member, it is intended that, in respect of each Client, the Clearing House will either transfer (i) the Client's positions, accompanied with the associated collateral, to another solvent FCM Clearing Member or (ii) liquidate the Client's positions and return the proceeds for the account of the Client or, if not possible, to the insolvent FCM/BD's bankruptcy trustee.

The porting of positions and, where applicable, collateral and the return of proceeds of liquidated FCM/BD positions directly to a Client is heavily regulated in the United States. Accordingly, the requirements of the US regulatory requirements and applicable bankruptcy laws constrain and limit the actions the Clearing House can take.

4. **Insolvency Law**

The arrangements for porting and the return of Client Clearing Entitlements rely upon some form of protective mechanisms which entitles the Clearing House to mitigate the risk that such porting or return of Client Clearing Entitlements be challenged by a defaulting Clearing Member's insolvency officer, as further detailed in paragraph 3 above.

Please note that legal opinions will be made available pursuant to these arrangements. Parties should seek their own independent legal advice in relation to the use, economic consequences of, and the selection of, particular account types and in relation to the different levels of protection and segregation arrangements.

SCHEDULE 1 : SUMMARY OF ACCOUNT TYPES AND FUNCTIONALITY

Account Type	Exposure to house positions? (Y/N)	Exposure to other client positions? (Y/N)	Exposure to other client collateral? (Y/N)	Restrictions on porting?
ISA	N	N	N	Porting is subject to request from the Client and consent from the backup Clearing Member
GOSA	N	N (save for a group of Clients sharing the same Margin Account that will be exposed to other Clients' positions of that group)	Y	Porting is subject to (i) all of the Clients sharing the same Margin Account or the Client providing clearing services to Indirect Clients consenting and nominating the same backup Clearing Member and (ii) consent from that backup Clearing Member. In case the Clients are not known to the Clearing House, Porting will not occur and Client Clearing Entitlements will be returned by the Clearing House to the defaulting Clearing Member's insolvency officer for the account of the relevant Clients, rather than to those Clients directly.
NOSA	N	Y	Y	
LSOC Account	N	N	Y	Subject to applicable US regulatory requirements, porting is subject to consent from the Client and the backup Clearing Member
SBS Account	N	N	Y	Subject to applicable US regulatory requirements, porting is subject to consent from the Client and the backup Clearing Member