
LCH SA
Clearing Rule Book

TITLE I - GENERAL PROVISIONS & LEGAL FRAMEWORK	5
CHAPTER 1 - DEFINITIONS	6
CHAPTER 2 - GENERAL PROVISIONS	18
Section 1.2.1 General	18
Section 1.2.2 Interpretation and references	18
Section 1.2.3 Clearing Rules modifications	18
Section 1.2.4 Publication and effectiveness	19
Section 1.2.5 Fees	19
Section 1.2.6 Currency	19
Section 1.2.7 Time reference	19
CHAPTER 3- LEGAL FRAMEWORK	20
Section 1.3.1 Status and activity of LCH SA	20
A. Status	20
A.1. A Clearing House	20
A.2. A Security Settlement System	20
B. Scope of activity	20
Section 1.3.2 General Clearing principles	22
A. General	22
A.1. Novation and irrevocability	22
A.2. Scope of LCH SA's obligations	22
A.3. General Clearing Process	23
B. Provisions related to financial products traded on markets operated by Euronext Brussels	24
Section 1.3.3 Liability and Force majeure	24
A. Liability of Clearing Members	24
B. Liability of LCH SA	24
C. Force majeure	25
Section 1.3.4 Confidentiality	26
Section 1.3.5 Applicable law	26
Section 1.3.6 Disputes	26
CHAPTER 4 – LCH SA DEFAULT	27
CHAPTER 5 – WINDING DOWN	30
TITLE II – MEMBERSHIP	31
CHAPTER 1- GENERAL PROVISIONS	32
Section 2.1.1 Participants	32
A. Clearing Members	32
B. Allied Clearing Houses	33
Section 2.1.2 Application Procedure	33
CHAPTER 2 - LEGAL OBLIGATIONS	36
Section 2.2.1 Regulatory framework	36
A. Membership Criteria applicable to Clearing Members other than Special Clearing Members	
B. Membership Criteria applicable to Special Clearing Members	
Section 2.2.2 Corporate organisation	37
A. Location of offices	37
B. Authorised Clearing Operators	37
Section 2.2.3 Third party contractual obligations	38

A.	Relationship with Settlement Agents and Payment Agents	38
A.1.	Common provisions	38
A.2.	Provisions related to Payment Agents	38
A.3.	Provisions related to Settlement Agents	38
B.	Relationship with Clients	39
C.	« del credere » Agents	39
C.1	Authority to cancel settlement instructions	39
Section 2.2.4	Record Keeping	40
Section 2.2.5	Test Processing	40
CHAPTER 3 - CAPITAL REQUIREMENTS		41
Section 2.3.1	Common General Provisions	41
Section 2.3.2	Provisions related to Securities and Derivatives product Groups	41
Section 2.3.3	Provisions related to Trading & Matching Platforms and MTS Italy	42
CHAPTER 4- INFORMATION OBLIGATIONS AND AUDIT		43
Section 2.4.1	Information	43
A.	Information upon Request	43
B.	Mandatory Information	43
Section 2.4.2	Audit and Inspection	44
CHAPTER 5- SUSPENSION AND TERMINATION OF MEMBERSHIP		46
Section 2.5.1	Common and General Provisions	46
Section 2.5.2	Suspension	46
Section 2.5.3	Termination	46
Section 2.5.4.	Provisions applicable to a Special Clearing Member	
A.	Special Clearing Member Events	
B.	Consequences of occurrence of a Special Clearing Member Event	
TITLE III – CLEARING OPERATIONS		48
CHAPTER 1- REGISTRATION		49
Section 3.1.1	Registration of Transactions	49
A.	Registration of Transactions registered in the Cash & Derivatives Clearing System	49
B.	Registration of Transactions registered in the Fixed Income Clearing System	49
Section 3.1.2	Registration of Open Positions in the Cash & Derivatives Clearing System	50
CHAPTER 2 - ACCOUNT STRUCTURE		51
Section 3.2.1	Trade Legs Registration	51
A.	Trade Legs Registration in the Cash & Derivatives Clearing System	51
A.1.	Position Accounts	51
A.2.	Market Maker’s Position	51
B.	Trade Legs Registration in the Fixed Income Clearing System	53
Section 3.2.2	Risk management	53
A.	For Transactions registered in the Cash & Derivatives Clearing System	53
A.1.	Margin Accounts	53
A.2.	Market Makers Margin Accounts	54
B.	For Transactions registered in the Fixed Income Clearing System	54
C.	Collateral Accounts	54
Section 3.2.3	Settlement	55
A.	For Transactions registered in the Cash & Derivatives Clearing System	55
B.	For Transactions registered in the Fixed Income Clearing System	54
Section 3.2.4	Client Account Structure of Indirect Clients	55

CHAPTER 3 - OPERATIONAL MANAGEMENT	56
Section 3.3.1 General Provisions for Transactions registered in the Cash & Derivatives Clearing System	56
A. Give-up	56
B. Transaction Cancellation	56
C. Correction	56
D. Transfer of Open Positions	56
E. Exercise and Assignment (for Derivatives)	56
Section 3.3.2 Functionalities available in the Fixed Income Clearing System	57
CHAPTER 4 - SETTLEMENT AND DELIVERY	58
Section 3.4.1 Settlement and Delivery of Transactions registered on the Cash & Derivatives Clearing System	58
A. Common Provisions	58
A.1. Provisions related to Securities	58
A.2. Provisions related to Derivatives (excluding commodities)	58
A.3. Provisions related to commodities	58
Section 3.4.2 Settlement and delivery of Transactions registered in the Fixed Income Clearing System.	59
Section 3.4.3 Settlement failure	60
A. Net fails	60
B. Management of settlement failure for futurecontracts on commodities	60
CHAPTER 5 - REGISTRATION IN A TRADE REPOSITORY	61
TITLE IV – RISK MANAGEMENT	62
CHAPTER 1 - GENERAL PROVISIONS	63
CHAPTER 2 - MARGIN REQUIREMENTS	64
CHAPTER 3 - DEFAULT FUND	66
Section 4.3.1 Contribution to the Default Funds	66
Section 4.3.2 Calls on the Default Funds	66
Section 4.3.3 Refilling of the Default Funds and service continuity	67
A. Refill Contributions to the Default Funds	67
B. Service Continuity	67
C. Service Closure	67
D. Effect on Termination of Clearing Members' Membership	68
CHAPTER 4 - COLLATERAL	69
A. Principles	69
B. Specificities	69
B.1. Trading & Matching Platforms	69
CHAPTER 5 - EVENT OF DEFAULT	70
Section 4.5.1 Notification of an Event of Default	70
Section 4.5.2 Measures in case of an Event of Default	70
Section 4.5.3 Provisions applicable on Euronext Paris	74
Section 4.5.4 Events of Default of an Allied Clearing House and consequences on Clearing Members	74
TITLE V – TRIPARTY REPO CLEARING SERVICES	76
CHAPTER 1 - GENERAL PROVISIONS AND LEGAL FRAMEWORK	77
CHAPTER 2 - CLEARING OPERATIONS	78

Section 5.2.1	Registration	78
Section 5.2.2	Account Structure	78
Section 5.2.3	Settlement and Delivery	78
Section 5.2.4	Corporate Events	79
CHAPTER 3 - RISK MANAGEMENT		80
Section 5.3.1	Margin Requirements	80
Section 5.3.2	Event of Default	80

TITLE I - GENERAL PROVISIONS & LEGAL FRAMEWORK

CHAPTER 1 - DEFINITIONS

For the purposes of this Clearing Rule Book, the following capitalised terms shall, unless specifically provided otherwise, have the respective meanings set out below:

Account Structure: The House Account Structure(s) and the Client Account Structure(s) registered in the Clearing System in the name of a Clearing Member.

Admission Agreement: The written agreement entered into between LCH SA and a Clearing Member or an Agent Member, as the case may be, pursuant to Chapters 1 and 2 of Title II of the Clearing Rule Book.

Admission Fee: The fee that is due once, upon its admission, by the Clearing Member and the Agent Member to LCH SA, as communicated by LCH SA.

Affected Agent Member: An Agent Member in respect of whom LCH SA has issued an Agent Close-out Notice.

Affected Open Position: An Open Position registered in the name of a Sponsored Member and attributed to an Affected Agent Member.

Affected (Paying Agent Resignation) Portfolios: In respect of each Affected (Payment Services) Sponsored Member, all of such Affected (Payment Services) Sponsored Member's Affected (Payment Services) Open Positions attributed to same Resigning (Payment Services) Agent Member.

Affected (Payment Services) Open Position: An Open Position registered in the name of a Sponsored Member and attributed to a Resigning (Payment Services) Agent Member.

Affected (Payment Services) Sponsored Member: A Sponsored Member that has Open Positions registered in its name and attributed to a Resigning (Payment Services) Agent Member.

Affected Portfolio: In respect of each Affected Sponsored Member, all of such Affected Sponsored Member's Affected Open Positions attributed to the same Affected Agent Member.

Affected Portfolio Acceptance Window: The period of time commencing on the date of the relevant Agent Close-out Notice and expiring 24 hours after such commencement, or such other period of time determined by LCH SA, as specified by LCH SA in such Agent Close-out Notice.

Affected Sponsored Member: A Sponsored Member that has Open Positions registered in its name and attributed to an Affected Agent Member.

Agent Buffer: The Collateral required to be transferred by an Agent Member to an Agent Buffer Account and applied by LCH SA to satisfy any call for Margin or Contributions made with respect to its Sponsored Member(s) which the Agent Member has not paid when due.

Agent Buffer Account: An account maintained in the books of LCH SA in which all Agent Buffer of an Agent Member will be recorded.

Agent Close-out Event: The issue, in respect of an Agent Member, of an Agent Close-out Notice as provided for by Chapter 6 of Title IV.

Agent Close-out Management Process (or Agent Close-out MP): The processes of LCH SA outlined in Chapter 6 of Title IV and in an Instruction.

Agent Close-out Management Process End Date (or Agent Close-out MP End Date): The date which is the close of business on the day falling 30 calendar days after the Agent Close-out Notice is issued by LCH SA (or, if such day is not a Clearing Day, the next succeeding Clearing Day).

Agent Close-out Management Process Start Date (or Agent Close-out MP Start Date): The date which is the close of business on the day on which the Affected Portfolio Acceptance Window expires.

Agent Close-out Management Process Window (or Agent Close-out MP Window): The period commencing on the Agent Close-out MP Start Date and ending on the Agent Close-out MP End Date.

Agent Close-out Notice: A notice sent by LCH SA pursuant to Article 4.6.2.4.

Agent Collateral Account: An Agent Buffer Account, Agent Resource Contribution Account and/or SM/AM Default Fund Account.

Agent Member:

For Fixed Income Securities Product Group and/or Baskets Product Group only:

(i) a Participant that has been admitted as such by LCH SA, and appointed by and on behalf of a Sponsored Member in accordance with the Clearing Rules, to provide:

(A) the Agent Member Services; or

(B) on an Agent Close-out Event, the Back-up Agent Services; or

(C) on a Paying Agent Resignation, the Back-up Paying Agent Services; or

(ii) a Sponsored Member who, in accordance with the Clearing Rules:

(A) on an Agent Close-out Event, elects to perform the Back-up Agent Services itself; or

(B) on a Paying Agent Resignation, elects to perform the Back-up Paying Agent Services,

as the context requires.

Agent Member Services: The services set out as such in Section 2.2.6 to be performed by an Agent Member.

Agent Member Admission Agreement: The Admission Agreement so designated under which, inter alia, LCH SA agrees to make available to an Agent Member, services in connection with such Agent Member's performance of its obligations arising under or in connection with the Transactions registered in the name of its relevant Sponsored Member(s) pursuant to the Clearing Rules.

Agent Member Termination Amount (or AM Termination Amount): For the purpose of Title I Chapter 4, the single, net positive or negative amount, denominated in Euro and determined pursuant to and in accordance with Article 1.4.1.11.

Agent Resource Contribution or ARC: Collateral required to be transferred to LCH SA by an Agent Member to provide a pre-funded financial resource that can be used by LCH SA to cover losses arising from an Event of Default affecting any of its Sponsored Members in connection with Transactions for which it is the Agent Member.

Agent Resource Contribution Account or ARC Account: An account maintained in the books of LCH SA in which an Agent Member's Agent Resource Contribution is to be recorded.

Allied Clearing House: A Participant, admitted as such by LCH SA under the conditions set forth in Chapters 1 and 2 of Title II and authorised to clear Transactions as described in Article 1.3.1.3.

Ancillary System Interface: The technical device allowing an ancillary system to TARGET2 to use a range of special, predefined services for the submission and settlement and ancillary systems payment instructions.

Applicant: A legal person that wishes to be admitted as a Clearing Member and/or as an Agent Member.

Applied Collateral Excess Proceeds: Where LCH SA has sold, or disposed of all or any part of the non-cash Collateral of a Sponsored Member and/or of an Agent Member (as applicable) held with LCH

SA, the amount (if any) of realisation proceeds from such sale or disposal remaining after LCH SA has applied the same in or towards discharge of the Sponsored Member's and/or Agent Member's obligations (as applicable) to LCH SA.

Assignment: The process, following an Exercise, by which a Clearing Member that holds a selling Open Position in an option contract is designated to fulfil its commitments resulting from the option contract.

Associated Trading Member: Any Person that:

- (i) trades Fixed Income Securities or Baskets directly on Trading & Matching Platforms and/or MTS Italy; and
- (ii) has entered into a Clearing Agreement with a General Clearing Member for the purpose of clearing such Fixed Income Securities or Baskets on the Clearing System.

Authorised Clearing Operator: Any individual authorised by the Clearing Member who represents the Clearing Member vis-à-vis LCH SA in respect of Transactions including organisation and control over the Systems and Operation and related clearing functions in respect of Financial Instruments.

Bank Recovery and Resolution Directive: Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.

Back-up Agent Services: The services set out as such in Section 2.2.6 to be performed by a Non-Affected Agent Member or an Affected Sponsored Member, on the occurrence of an Agent Close-out Event in respect of an Affected Agent Member.

Back-up Paying Agent: An Agent Member that is not a Resigning (Payment Services) Agent Member and has elected to perform the Back-up Paying Agent Services for an Affected (Payment Services) Sponsored Member.

Back-up Paying Agent Services: With respect to the Payment Services, the services set out as such in Section 2.2.6 to be performed by an Affected (Payment Services) Sponsored Member or Back-up Paying Agent, following a Paying Agent Resignation.

Basket: A basket of Securities eligible for Triparty Repo Transactions, as specified in a Notice.

Buffers: The Agent Buffer and the Agent Resource Contribution.

Borrowing Threshold: In relation to a Special Clearing Member, any of the following:

- (i) the maximum authorised limit of the Net Cash Borrower Position as set out in the Admission Agreement executed by the Special Clearing Member; and/or
- (ii) the maximum authorised limit for that Special Clearing Member in terms of Net Cash Borrower Position secured against securities that do not meet a minimum credit or liquidity criteria as set out in the Admission Agreement executed by the Special Clearing Member; and/or
- (iii) when a Special Clearing Member is a net Cash Borrower, any new Repo of that Special Clearing Member is subject to a maximum term, such term to be set out in the Admission Agreement executed by the Special Clearing Member.

Such thresholds may be reviewed, assessed and amended by LCH SA on a regular basis and at least annually, under the conditions set out in the Clearing Rules.

Börse Berlin: Börse Berlin AG, a Market Undertaking founded as an exchange and incorporated under the laws of Germany by the Authorization of the Berlin Senate as State Supervisory Authority of 31 July 2000, with trading name "Börse Berlin Equiduct Trading", and to whom LCH SA provides Clearing Services for the Transactions in Securities

Bourse de Luxembourg/BdL: Société de la Bourse de Luxembourg SA, a Market Undertaking incorporated under the law of Luxembourg on April 5th, 1928 to whom LCH SA provides Clearing Services for the Transactions in Securities listed in a Notice.

Business Combination: A single separate legal entity combining one or more Persons that are jointly and severally liable, and form part of, and are generally considered to belong to, the same corporate group of businesses, including, but not limited to, European Economic Interest Groups.

Capital: For Clearing Members other than Sponsored Members taking the form of an investment fund, or of a pension fund, and for Agent Members: shareholders' equity determined by LCH SA on the basis of the Capital Adequacy Directive, comprised of core capital (tier 1) and supplementary capital (tier 2), and, as from 1 January 2014, core capital (Tier 1) and additional core capital (Tier 1) and Tier 2 capital as defined by the CRR and the amount of which is determined by LCH SA. For Sponsored Members taking the form of an investment fund, or of a pension fund, the amount calculated in accordance with the principles set out in a Notice.

Capital Adequacy Directive: Directive 2006/49/EC of the European Parliament and of the Council of June 14, 2006 on the capital adequacy of investment firms and credit institutions.

Cash and Derivatives Clearing System: The Clearing System managed by LCH SA to clear Transactions in Securities and/or Derivatives Product Group

Cash Borrower or Collateral Giver: In the framework of a Triparty Repo, a Clearing Member that borrows cash against collateralising Basket eligible Securities.

Cash Lender or Collateral Taker: In the framework of a Triparty Repo, a Clearing Member that lends cash against collateralising Basket eligible Securities.

Central Bank Guarantee: First demand guarantee issued by a central bank in favour of LCH SA eligible as Collateral in accordance with the terms of an Instruction.

Clearing Agreement: (i) The agreement entered into between a Clearing Member and a Trading Member for the purpose of clearing eligible Transactions; and (ii) from the date of the entry into force of the Chapter 1 of the Instruction II.2-3 pursuant to a Notice issued following related amendments of the AMF General Regulations (*Règlement Général de l'AMF*), the agreement entered into between a Clearing Member and a Client for the purpose of clearing eligible Transactions.

Clearing Day: Any day indicated in a Notice published by LCH SA at least annually.

Clearing Fee: Such fee as is communicated by LCH SA from time to time.

Clearing Member: A Participant, either a General Clearing Member or an Individual Clearing Member (including a Special Clearing Member) admitted as such by LCH SA, under the conditions set forth in Chapters 1 and 2 of Title II.

Clearing Rules: The rules set forth in the Clearing Rule Book, including all Instructions and Notices thereto, as may be amended from time to time.

Clearing Rule Book: This document as may be amended from time to time.

Clearing Services: Services provided by LCH SA pursuant to Article 1.3.1.5 in relation to Product Groups.

Clearing System: The relevant IT system managed by LCH SA and giving a technical access to clearing activities.

Client:

(i) For Transactions in Securities and Derivatives Product Groups, a Non Trading Member or a Trading Member; and

(ii) For Transactions in Fixed Income Securities Product Groups, an Associated Trading Member.

Client Account(s): A Client Collateral Account, a Client Margin Account and/or a Client Position Account.

Client Account Structure: The following complete set of Client Accounts, which may take the form of Individual Segregated Accounts or Omnibus Segregated Accounts and which are opened for administrative, risk management and Collateral purposes in the name of a Clearing Member for the account of the relevant Client(s) or, as applicable, Indirect Client(s) of such Clearing Member:

(i) In the Cash and Derivatives Clearing System

- one or several Client Position Account(s);
- one or several Client Margin Account(s);
- one or several Client Collateral Account(s).

(ii) In the Fixed Income Clearing System:

- one or several Client Position Account(s); and
- one or several Client Collateral Account(s).

Client Collateral Account: An account opened by LCH SA at the request and in the name of a Clearing Member in the books of LCH SA to record Collateral provided by such Clearing Member in respect of the relevant Client Open Positions of such Clearing Member.

Client Margin Account: (i) For the Cash and Derivatives Clearing System: an account opened by LCH SA at the request and in the name of a Clearing Member for risk management purposes, in which the relevant Client Open Positions of such Clearing Member (including relevant Net Fails if applicable) are registered in order to calculate the Margin requirements of such Clearing Member in respect of the relevant Client(s) or, as applicable, Indirect Client(s) of such Clearing Member; and (ii) for the Fixed Income Clearing System: each Position Account which is used for risk management purposes in accordance with Article 3.2.2.8.

Client Open Position: The net sum of the relevant Client Trade Legs determined in accordance with the Clearing Rules.

Client Position Account: An account opened by LCH SA at the request and in the name, of a Clearing Member in order to register all the relevant Client Trade Legs or, as applicable, Client Open Positions of such Clearing Member.

Client Trade Leg: Either a payment obligation or a delivery obligation in respect of Financial Instruments owed by or to LCH SA resulting from a Transaction registered by LCH SA, in the name of a Clearing Member, executed for the benefit of a Client or, as applicable, an Indirect Client of such Clearing Member.

Collateral: Any Security, cash, or Central Bank Guarantee, as applicable, and as specified in an Instruction, pledged, granted or transferred outright to LCH SA, in order to secure the performance of the Clearing Member's and/or Agent Member's obligations. Any surplus of Security, cash or Central Bank Guarantee registered in a Collateral Account or Agent Collateral Account is deemed to be Collateral.

Collateral Account(s): A House Collateral Account and/or a Client Collateral Account.

Commodities Dealer: A Trading Member on a Derivative market which is authorised to trade commodities.

Competent Authority: Any authority recognised by its home member state as such under the terms of the Capital Adequacy Directive, the CRR, EMIR, or any other authority recognised by its home member state under the relevant laws and regulations applicable to a Clearing Member located outside the European Economic Area (EEA).

Contractual Event of Default: The Clearing Member, other than a Special Clearing Member, failing at any time to comply duly with any of its obligations under the Clearing Rules or being likely to become unable to meet any of its obligations under the Clearing Rules or in the case of an Allied Clearing House such Allied Clearing House failing to pay, when due, any Margin or any cash settlement amount in case of service closure. For the avoidance of doubt and according to article 68(3) of the Bank Recovery and Resolution Directive, a Clearing Member shall not be deemed to be in Contractual Event of Default on

the sole ground that it is subject to a resolution procedure, within the meaning of such Bank Recovery and Resolution Directive.

Contribution: The contribution of an Agent Member to a Default Fund in connection with one of its Sponsored Members and Other Mutualised Contributions.

Correction: The modification of an original Posting within the Account Structure of the same Clearing Member or a modification of an original Posting within the Account Structure of another Clearing Member. This functionality is available to Clearing Members on Derivatives markets.

Counter-guarantee Agreement: An agreement concluded between the Central Bank of Belgium or the Central Bank of the Netherlands and a Clearing Member or a third party, duly authorised by the central bank, whereby such Clearing Member or the third party provides the central bank with enough collateral security for the latter to issue a guarantee in favour of LCH SA under the terms of the relevant Guarantee Agreement for the fulfilment of the Clearing Member's obligations towards LCH SA regarding Margin and the Default Fund, in accordance with Article 46(1) of EMIR.

Credit Institution: Any credit institution as defined in the CRR.

CSD of Reference: Central securities depository in which Securities are settled.

CRR : Regulation (UE) 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (UE) 648/2012.

Debt Securities Intra-day Margin: In the framework of Transactions in debt Securities cleared on the Fixed Income Clearing System, the required margin amount calculated by LCH SA, to cover risk on an intra-day basis and resulting from the revaluation of Clearing Members' Open Positions and Collateral as specified in an Instruction.

Default Fund: The collective system of collateralisation of commitments as set out in Chapter 3 of Title IV.

Defaulting Clearing Member: A Clearing Member, other than a Special Clearing Member, that is subject to an Event of Default, and in respect of which LCH SA has issued a notice of default, in accordance with Article 4.5.1.1.

Defaulting Sponsored Member: A Defaulting Clearing Member which is a Sponsored Member.

Delivery Account(s): An account opened by LCH SA pursuant to Section 3.2.3 exclusively for settlement purposes. In relation to the Fixed Income Clearing System, Delivery Account means each Position Account used for settlement purposes only in accordance with Article 3.2.3.5.

Derivative: Any financial contract of one of the following categories:

(i) options and futures contracts in respect of Securities or commodities, including equivalent cash-settled instruments,

(ii) any other financial contract, the value of which is determined by reference to prices of Securities or commodities, interest rates or yields, foreign exchange rates or other indices or measures which, subject to relevant National Regulations, a Market Undertaking may determine to be eligible for trading on a Derivatives Market.

Credit default swaps are explicitly excluded from this definition. The clearing of such financial products by LCH SA is governed by a dedicated set of rules.

Derivatives Market: Any Regulated Market, for Derivatives

EMIR: Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories and all delegated regulatory and implementing technical standards adopted pursuant to Regulation (EU) No. 648/2012 and published in the Official Journal of the European Union from time to time.

Euroclear Collateral Management System (CMS): In the framework of a Triparty Repo, a tool named “Autoselect” operated by Euroclear France that automatically allocates, values and manages collateralising securities and sends delivery and settlement instructions to the CSD of Reference.

Euroclear Inter-operability Agreement : The standard service agreement (named “interoperability repurchase service agreement”) to be entered into between the Triparty Repo Clearing Member and Euroclear France or Euroclear Bank.

Euronext Amsterdam: Euronext Amsterdam N.V., a Market Undertaking (“naamloze vennootschap”) organised under the laws of the Netherlands, operating a Securities exchange and Derivatives exchange (“houder van een effectenbeurs”) authorised pursuant to Article 22 of the Dutch Securities Markets Supervision Act of 1995 (“Wet toezicht effectenverkeer 1995”).

Euronext Brussels: Euronext Brussels S.A./N.V., a corporation (“société anonyme”/“naamloze vennootschap”) organised under the laws of Belgium and recognised as Market Undertaking in accordance with Article 16 of the Belgian Law of August 2, 2002 governing the supervision of the financial sector and the financial services (“Loi relative à la surveillance du secteur financier et aux services financiers / Wet betreffende het toezichtop de financiële sector en de financiële diensten”).

Euronext Lisbon: Euronext Lisbon – Sociedade Gestora de Mercados Regulamentados, S.A (“sociedade anónima”), a Market Undertaking organised under the laws of Portugal, authorised pursuant to Article 19 of the Portuguese Decree-Law n°357-C/2007, of 31st October, as amended by the Decree-Law n.º 52/2010 of 26 May (“Regime jurídico das sociedades gestoras de mercado regulamentado, das sociedades gestoras de sistemas de negociação multilateral, das sociedades gestoras de câmara de compensação ou que actuem como contraparte central das sociedades gestoras de sistema de liquidação e das sociedades gestoras de sistema centralizado de valores mobiliários”).

Euronext London Limited: a company incorporated in England and Wales (registered under number 8631662), having its registered office at Juxon House, 100 St Paul’s Churchyard, London EC4M 8BU, England, which has been recognised as an investment exchange pursuant to section 290 of the Financial Services and Markets Act 2000.

Euronext Paris: Euronext Paris S.A., a corporation (“société anonyme”) organised under the laws of France, authorised as a Market Undertaking (“Entreprise de Marché”) within the meaning of Article L. 421-1 of the French Monetary and Financial Code (Code Monétaire et Financier).

Event of Default: A Contractual Event of Default or an Insolvency Event of Default with respect to a Clearing Member.

Exercise: The process by which a Clearing Member that holds a buying Open Position exercises its right resulting from the option contract.

Financial Group: Two companies belong to the same Financial Group where one exercises a “control” over the other. Such control exists when one such company:

- directly or indirectly holds a fraction of the share capital which confers it the majority of voting rights in the other company’s shareholders’ meetings;
- holds the majority of the voting rights in the other company, pursuant to an agreement with the other company’s other shareholders and partners;
- in practice takes the decisions of the other company in its shareholders’ meetings, by virtue of the voting rights which it holds.

The parent company is presumed to exercise control over the other when it directly or indirectly holds more than 40 % of the voting rights and no other shareholder holds more.

Financial Instrument: Any Security or Derivative.

Fixed Income Securities: Securities traded on Trading & Matching Platforms, and on MTS Italy.

Fixed Income Clearing System: The Clearing System managed by LCH SA to clear Transactions in Fixed Income Securities and Triparty Repos concluded on Trading & Matching Platforms, and MTS Italy.

Forward Repo: A Repo registered in the Clearing System but in respect of which the Initial Transaction intended Settlement Date has not occurred yet.

General Clearing Member: (i) For Securities and Derivative Products Groups, as set-out in an Instruction, a Clearing Member authorised to clear Transactions which have been dealt for its own account, or have been concluded for the account of its Non Trading Members and/or Trading Members; and (ii) for Fixed Income Securities and Baskets Product Group, as set-out in an Instruction, a General Clearing Member is a Clearing Member authorised to clear the Transactions which have been dealt for its own account or for the account of its Associated Trading Members.

Give-Up: An intra day process by which a Trade Leg or a part of it is transferred:

- by a Clearing Member (“the allocator”) to another one (“the allocatee”) after the explicit agreement of the allocatee, or;
- by a Clearing Member within its Account Structure from a Position Account to another, the two relevant Position Accounts must belong to two different Trading Members (the Clearing Member possibly being a Trading Member itself).

This can be done upon the request of a Trading Member whose Transactions are cleared by a General Clearing Member.

Gross Omnibus Segregated Account Structure (or GOSA Structure): An Omnibus Segregated Account including several Margin Accounts and one Collateral Account.

Guarantee Agreement: An agreement between a central bank and LCH SA under which the central bank guarantees towards LCH SA the fulfilment of the Clearing Member’s obligations towards LCH SA under the Clearing Rules as regards the Margins and the Default Fund.

Home State: The State in which a Person has its registered office, if any or, its head office or, in the case of an individual, the State in which such individual has its principal place of business.

House Account(s): A House Collateral Account, a House Margin Account and/or a House Position Account.

House Account Structure: The following set of House Accounts opened in the name of a Clearing Member for administrative, risk management and Collateral purposes in the name of a Clearing Member for its own account:

(i) In the Cash and Derivatives Clearing System

- one or several House Position Account(s); and
- one or several House Margin Account(s); and
- one or several House Collateral Account(s);

(ii) In the Fixed Income Clearing System:

- one or several House Position Account(s); and
- one or several House Collateral Account(s).

House Collateral Account: An account opened by LCH SA in the name of a Clearing Member in the books of LCH SA to record (i) any Collateral provided by such Clearing Member in respect of the House Open Positions of such Clearing Member, and (ii) any contribution to the relevant Default Fund of such Clearing Member (excluding, for the avoidance of doubt, Contributions paid by the Agent Member of such Clearing Member admitted by LCH SA as a Sponsored Member).

House Margin Account: (i) For the Cash and Derivatives Clearing System, an account opened by LCH SA in the name of a Clearing Member in the Clearing System for risk management purposes, in which the House Open Positions of such Clearing Member (including relevant Net Fails if applicable) are registered, in order to calculate the relevant Margin requirements of such Clearing Member for its own account; and (ii) for the Fixed Income Clearing System: each Position Account which is used for risk management purposes in accordance with Article 3.2.2.8.

House Open Position: The net sum of the House Trade Legs determined in accordance with the Clearing Rules.

House Position Account: An account opened by LCH SA in the name, of a Clearing Member in order to register all House Trade Legs or, as applicable, House Open Positions of such Clearing Member.

House Trade Leg: Either a payment obligation or a delivery obligation in respect of Financial Instruments owed by or to LCH SA resulting from a Transaction registered by LCH SA in the name of a Clearing Member, executed for the latter's own account.

ICSD : International central securities depository.

Indirect Client: A client of a Client

Individual Clearing Member: (i) For Securities and Derivatives Product Groups or for Baskets Product Group, as set-out in an Instruction, a Clearing Member authorised to clear Transactions dealt for its own account, or allocated to it or which have been concluded for the account of its Non Trading Members; (ii) for Fixed Income Securities Product Group, as set-out in an Instruction, a Clearing Member authorised to clear Transactions dealt for its own account exclusively.

Individual Segregated Account (ISA): A Client Account which is subject to "individual client segregation" within the meaning of EMIR, and which has been designated as such by a Clearing Member in relation to any of its Known Clients.

Individual Segregated Account Structure (or ISA Structure): A Client Account Structure exclusively composed of Individual Segregated Accounts.

Initial Leg: In the framework of a Repo, the Initial Leg is a Trade Leg incorporating:

- for the seller of debt securities, an obligation to deliver securities to LCH SA
- for the buyer of securities, an obligation to pay the transactions amount to LCH SA.

Initial Margin: The amount calculated by LCH SA, as specified in an Instruction, to cover the liquidation risk and resulting from a Clearing Member's Open Positions in Financial Instruments as a result of Transactions registered with LCH SA in the name of such Clearing Member.

For option contracts, the Initial Margin amount includes the variation of the Option Premium.

Initial Transaction: The Initial Transaction is composed of two Initial Legs.

Insolvency Event of Default: (i) The Clearing Member, other than a Special Clearing Member, or Allied Clearing House being subject to an Insolvency Proceeding, or (ii) on the basis of publicly available information, the Clearing Member, other than a Special Clearing Member, being likely to become subject to an Insolvency Proceeding. For the avoidance of doubt and pursuant to article 68(1) of the Bank Recovery and Resolution Directive, a Clearing Member shall not be deemed to be subject to an Insolvency Event of Default on the sole ground that it is subject to a resolution procedure, within the meaning of such Bank Recovery and Resolution Directive.

Insolvency Proceeding: With respect to the head office or any of the branches of the Clearing Member, Agent Member or Allied Clearing House, as the case may be:

- (i) a declaration of a governmental or judicial moratorium or any equivalent procedure;
- (ii) a cessation of business, commencement of a voluntary winding-up procedure or any other equivalent procedure;
- (iii) a commencement of a prevention procedure including (A) commencement of a scheme of arrangement ("*conciliation*"), (B) appointment of an administrator by the regulators or the courts, or any equivalent procedure;or

- (iv) measures for the treatment of business difficulties under French law, or any equivalent procedure governed by foreign law, including (A) commencement of a safeguard procedure, (B) appointment of an administrator by the regulators or the courts, (C) commencement of a reorganisation procedure, (D) commencement of a court-ordered winding-up procedure or any equivalent procedure to those referred to in (A) to (D).

For the avoidance of doubt and pursuant to article 68(1) of the Bank Recovery and Resolution Directive, a resolution procedure, within the meaning of such Directive, does not qualify as an Insolvency Proceeding.

Instruction: Any document issued as such by LCH SA, as amended from time to time, whereby the provisions of this Clearing Rule Book are interpreted or implemented and which is binding upon Clearing Members and Agent Members generally or upon any category of Clearing Members and/or Agent Members in particular.

Intra-day Margins: The amount calculated by LCH SA, as specified in an Instruction, to cover risk and resulting from the revaluation in real time of prices and Clearing Member Positions.

Investment Firm: Any investment firm as defined in MiFID2/MiFIR.

Known Client: means a Client of a Clearing Member, identified by the latter at Client Margin Account level, whose full identity has been notified in writing by the Clearing Member to LCH SA, together with:

- a copy of the registration certificate or certificate of incorporation or other equivalent document in the case of a legal entity or proof of identity in the case of a natural person;
- contact details of the authorised representatives of the Client (names of individuals, phone numbers, email addresses, postal address);
- any non public document which LCH SA may request to carry on anti money laundering checks in accordance with applicable laws, regulations and procedures.”

LCH SA: The commercial name of "Banque Centrale de Compensation", a clearing house as defined by Article 440-1 of the French Monetary and Financial Code (Code Monétaire et Financier) complying with Title IV of Book V of the General Rules of the Autorité des Marchés Financiers. LCH SA is incorporated in France and may have branches in other countries in which it operates.

LCH Insolvency Proceeding: For the purpose of Title I Chapter 4, where a safeguard procedure (*procédure de sauvegarde*), accelerated financial safeguard proceeding (*procédure de sauvegarde financière accélérée*), judicial reorganisation procedure (*procédure de redressement judiciaire*) or winding-up procedure (*procédure de liquidation judiciaire*) is formally opened by a French court against LCH SA in accordance with French applicable law.

Letter of Credit: A letter of credit issued by a Credit Institution in the form of the model issued by LCH SA and sent to Clearing Members upon request.

Loan: A loan as defined in Instruction III.4.10 b.

Mandatory Client Clearing Provisions: Provisions, as set out in an Instruction, which must be included in any Clearing Agreement.

Margin: Any margin, including Initial Margin, Variation Margin and Intraday Margins calculated daily by LCH SA and any additional margin for each Clearing Member on the basis of this Clearing Rule Book.

Margin Account(s): A House Margin Account and/or a Client Margin Account.

Market Maker: A liquidity provider or a market maker, as defined in the appropriate Trading Rules, who has undertaken, and been authorised by the Market Undertaking, to enhance the market liquidity of a particular Financial Instrument in accordance with those rules.

Market Member: A Person (other than a Trading Member) that: (i) has been admitted to the membership in a market (other than those operated by a Market Undertaking) and (ii) that has signed an agreement with a Person that has been admitted to LCH SA membership for the clearing of the Transactions traded on markets operated by the relevant market and pursuant to the relevant market rules and (iii) that is defined as such in the appropriate legal documentation issued by LCH SA.

Market Undertaking: Any market undertaking duly authorised by its National Regulations or its Competent Authority, to operate Regulated Markets and/or MTFs, for which LCH SA provides Clearing Services.

Member State: Any of the Member States of the European Economic Area.

MiFID2/MiFIR: Directive 2014/65/EU of May 15, 2014 on markets in financial instruments ("**MiFID2**") and Regulation (EU) no. 600/2014 of May 15, 2014 on markets in financial instruments ("**MiFIR**"), and any delegated act or any regulatory technical standards or implementing standards made or to be made thereunder, as implemented under the relevant Member States of the European Union and as amended or replaced from time to time.

Minimum Deposit: In the framework of a Triparty Repo, a Collateral deposit initially required by LCH SA from Clearing Members, as set out in an Instruction.

MTS Italy: MTS S.p.A, a Market Undertaking organised under the laws of Italy and responsible for the management of the Regulated wholesale Market for Italian and foreign government Securities, as per Article 66 of Italian legislative decree No. 58 dated 28th February 1998.

Multilateral Trading Facility (MTF): A multilateral trading facility as defined in Article 4 of MiFID2.

National Regulations: Any and all laws and regulations applicable in the jurisdiction of the Market Undertaking

National Treasury Agency: A governmental entity which is tasked with carrying out Government's debt management and handling treasury management.

Net Cash Borrower Position: A Special Clearing Member's net position corresponding to an obligation to deliver securities under Repo or Triparty Repo Transactions.

Net Fail ("Suspens" "Niet Vereffende Open Positie"): Any net Open Position in respect of which a cash payment or delivery of Securities has failed to take place during the last settlement windows of the designated Settlement Date, as defined by the Securities settlement system and/or a central securities depository.

Net Omnibus Segregated Account Structure (or NOSA Structure): An Omnibus Segregated Account including one Margin Account and one Collateral Account.

Net Position Exposure: In the framework of a Triparty Repo, a net position corresponding to an obligation for a Cash Borrower and/or Cash Lender to pay cash and/or to deliver collateralising Securities. This Net Position Exposure is calculated by LCH SA per Clearing Member, per Basket, and per settlement window, as set out in Article 5.2.2.1

Non-Affected Agent Member: An Affected Sponsored Member's corresponding Agent Member which is not an Affected Agent Member.

Non Trading Member: Any Person that:

- (i) has no direct access to trading and uses the services of a third party (i.e. Clearing Member or a Trading Member) to negotiate Transactions in Derivatives or Securities Product Groups ; and
- (ii) has entered into a Clearing Agreement with a Clearing Member for the purpose of clearing such Transactions.

Notice: Any document issued as such by LCH SA, as amended from time to time, informing Clearing Members and Agent Members generally, or a particular category of Clearing Members and/or Agent Members, of specific matters of relevance with respect to the proper functioning of the clearing of Transactions and which is binding upon such Clearing Members and Agent Members. Unless stated otherwise in the Clearing Rule Book, Notices may only cover issues of technical and operational nature, implementing the main principles laid down in the Clearing Rule Book or in an Instruction.

Omnibus Segregated Account: A Client Account which is subject to "omnibus client segregation" within the meaning of EMIR.

Omnibus Segregated Account Structure: A Client Account Structure which is composed of one or more Omnibus Segregated Account(s).

Open Position: A Client Open Position or a House Open Position, as the case may be.

Option Premium: Amount per option contract paid by the buying Clearing Member to LCH SA for the right to buy or sell the underlying Financial Instrument.

Other Mutualised Contributions: Any and all of the Refill Contribution to the relevant Default Fund, the Service Continuity Contribution, the Fixed Income Voluntary Payments and the Service Closure Payments.

Participant: A legal person admitted, either as a Clearing Member and/or an Agent Member, or as an Allied Clearing House, by LCH SA in the framework of the Settlement Finality Directive and of the relevant Articles of the French Monetary and Financial Code.

Paying Agent Resignation: The resignation of a Resigning (Payment Services) Agent Member.

Payment Agent: A third party which holds a TARGET2 Account and/or a cash account with a Credit Institution designated by LCH SA in an Instruction, and which a Clearing Member can use to fulfil some or all of its payment or Margin obligations towards LCH SA.

Payment Services: The services defined as such in Section 2.2.6.

Person: Any individual, legal entity, corporation, partnership, association, fiduciary or entity as the context admits or requires.

Position: Obligations of a Clearing Member vis-à-vis its Client resulting from a Transaction, either to deliver Financial Instruments or pay.

Position Account(s): A House Position Account and/or a Client Position Account.

Posting: The process whereby a Clearing Member registers a Trade Leg, or part of it, on a Position Account within such Clearing Member's Account Structure according to the parameterisation in the Clearing System or the clearing information entered in the trading system. A Posting can be modified until the end of the Clearing Day on which the Transaction has been registered.

Power of Attorney: Authority given by a Person to another to allow the latter to act in the name of the former.

Product Group: All products of a particular category of Financial Instruments, as specified in an Instruction, and in particular: Securities, Fixed Income Securities, Derivatives, and Baskets

Registration Date: The date on which a Transaction has been registered into the Clearing System, in accordance with article 1.3.2.1.

Regulated Market: Any organised market for Financial Instruments as defined such in Article 4 of MiFID2.

Replacement Services Provider: Each of the Back-up Agent Services Provider and Affected SM BAS Provider as defined in an Instruction.

Repo: A repurchase transaction in respect of on debt Securities cleared in the Fixed Income, Clearing System and whereby the seller agrees to repurchase the Securities at an agreed price and at a stated time. A Repo is set up by an Initial Transaction and closed by a Return Transaction.

Resigning (Payment Services) Agent Member: An Agent Member resigning its position as an Agent Member in respect of Payment Services provided to a Sponsored Member pursuant to the Clearing Rules.

Return Transaction:

In the framework of a Repo, a transaction of registered in the Clearing System whereby:

- the buyer of Securities of the Initial Transaction returns debt Securities; and
- the seller of Securities of the Initial Transaction returns a cash amount including, if appropriate, interest.

Same-day Repo: A Repo for which the Initial Transaction trade date corresponds to the Initial Transaction intended Settlement Date.

Security: Any financial instrument of one of the following categories:

- (i) shares or other equity securities,
- (ii) certificates,
- (iii) depositary receipts in respect of shares;
- (iv) bonds or other debt securities,
- (v) warrants or similar financial instruments entitling the holder to acquire any of the aforesaid securities or any basket of such securities or to receive a cash amount determined by reference to a future price or value of such security or basket,
- (vi) units in collective investment undertakings or participation units in other investment vehicles, and
- (vii) any other instruments which, subject to relevant National Regulations, the Market Undertakings may decide to be eligible for trading on a market for securities which they operate.

Settlement Address: The identification of an account or sub-account in a securities settlement system and/or a central securities depository opened in the name of the Settlement Agent or of the Clearing Member or the identification of an account in a central bank/Credit Institution opened in the name of the Clearing Member or of the Payment Agent, as the case may be.

Settlement Agent: A third party which is admitted as a participant of a securities settlement system and/or a central securities depository designated by LCH SA in an Instruction and so holds a securities account, which a Clearing Member can use to fulfil some or all of its Securities delivery obligations or Margin obligations towards LCH SA.

Settlement Date: The date on which delivery against payment takes place, which is:

- (i) for Transactions cleared on the Cash and Derivatives Clearing System, in principle the second Clearing Day following the Transaction day, unless otherwise set out in an Instruction
- (ii) for Transactions cleared on the Fixed Income Clearing System, the applicable date as agreed at the time of the Transaction as set out in an Instruction.

Settlement Finality Directive: Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998, on settlement finality in payment and securities settlement systems.

Settlement Price: A benchmark price, used daily for the calculation of the Margins and for the valuation of Open Positions. In case the relevant Financial Instrument is traded on markets operated by several Market Undertakings, as a principle, the relevant price will be the one of the relevant Regulated Market, as defined in an Instruction, and the method of calculation of the Settlement Price is set out in the relevant Trading Rules.

For Trading & Matching Platforms specificities, the method of calculation of the Settlement Price is set out in a Notice.

Sponsored Member/Agent Member Account (or SM/AM Account): An account structure opened within LCH SA by a Sponsored Member in respect of the Transactions of the Fixed Income Securities Product Group and/or Baskets Product Group dealt for its own account exclusively and associated with an Agent Member of such Sponsored Member.

Sponsored Member/Agent Member Current Collateral Balance (or SM/AM Current Collateral Balance): In respect of an account of a Sponsored Member: (A) the sum of: (i) all Collateral which has been transferred by or on behalf of that Sponsored Member to LCH SA (or which would, but for the application of a payment netting provision applying in the ordinary course of business, have been transferred by that Sponsored Member to LCH SA) on account of any type of that Sponsored Member's Margin obligations relating to the relevant account pursuant to the Clearing Rules; (ii) the cash proceeds of any non-cash Collateral relating to the relevant account which has been sold or otherwise disposed of by LCH SA, in accordance with Chapter 5 of Title IV or otherwise, to the extent that those proceeds have not been applied in or towards discharge of an obligation owed by the Sponsored Member to LCH SA; and (iii) any Applied Collateral Excess Proceeds credited to the relevant account; less (B) any Sponsored Member Applied Collateral and any Sponsored Member Returned Collateral in relation to that account.

Sponsored Member/Agent Member Default Fund Account (or SM/AM Default Fund Account): An account maintained in the books of LCH SA separately for each of the fixed income Default Fund and the Triparty Repo Default Fund, in which Contributions by an Agent Member in connection with a Sponsored Member in respect of the relevant Default Fund will be reflected in the books of LCH SA.

Sponsored Member: An Individual Clearing Member authorised to clear Transactions of the Fixed Income Securities Product Group and/or Baskets Product Group dealt for its own account exclusively, and admitted as such by LCH SA in accordance with the Clearing Rules.

Sponsored Member Applied Collateral: In respect of an account of a Sponsored Member: (i) any cash Collateral in respect of which LCH SA's obligation to return such Collateral has been discharged pursuant to the Clearing Rules by means of that return obligation having been set-off against an obligation owed by that Sponsored Member to LCH SA, as contemplated by the Clearing Rules; (ii) any non-cash Collateral (including in the form of Securities) that has been applied or the proceeds from which have been applied in or towards discharge of the Sponsored Member's obligations to LCH SA.

Sponsored Member Returned Collateral: In respect of an account of a Sponsored Member, any Collateral: (i) which LCH SA has returned to a Sponsored Member and/or Agent Member (as applicable); or (ii) in respect of which the obligation to return such Collateral has been discharged as a result of the operation of a payment netting provision applying in the ordinary course of business.

Sponsored Member Admission Agreement: The Admission Agreement so designated under which, inter alia, LCH SA agrees to make available to a Sponsored Member Clearing Services in connection with Transactions.

Special Clearing Member: A legal entity meeting the criteria set out in Article 2.2.1.3 of the Clearing Rule Book admitted as an Individual Clearing Member by LCH SA and authorised to clear Transactions on Fixed Income Securities Product Group and/or Baskets Product Group for its own account exclusively.

Special Clearing Member Business Day: A business day as notified by a Special Clearing Member to LCH SA, in accordance with Article 2.4.1.8 of the Clearing Rule Book.

Special Clearing Member Event: Any of the events listed in Article 2.5.4.1 of the Clearing Rule Book occurring in respect of a Special Clearing Member.

Systems and Operations: All parts and components of the technical system of a Clearing Member or Agent Member, including hardware and software that is operated and maintained by or on behalf of a Clearing Member or Agent Member to clear Transactions or provide services as an Agent Member, together with the procedures that are in place to operate such system, including risk management provisions.

TARGET2 Account: An account held by a TARGET2 participant in TARGET2 payment module with a Eurosystem Central Bank which is necessary for such TARGET2 participant to: (a) submit payment orders or receive payments via TARGET2; and (b) settle such payments with such Eurosystem Central Bank.

TARGET Settlement Day: Any day on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET2) System is open for the settlement of payments in Euro.

Termination Amount: For the purpose of Title I Chapter 4, each of the single, net positive or negative amounts, denominated in Euro and determined pursuant to and in accordance with Article 1.4.1.9.

Termination Date: For the purpose of Title I Chapter 4, the date determined in accordance with the provisions of Article 1.4.1.2 or Article 1.4.1.3, as applicable, upon which the Trade Legs or Open Positions in a Clearing Member's Account Structure, will be terminated and liquidated in accordance with Articles 1.4.1.1 to 1.4.1.14.

Termination Period: This term shall have the meaning given in Article 2.5.4.6.

Trade Date: The date on which a Transaction has been executed on a Regulated Market, a Trading & Matching Platform or an MTF.

Trade Leg(s): A House Trade Leg and/or a Client Trade Leg.

Trade Repository: A trade repository duly registered in accordance with EMIR, as appointed by LCH SA in a Notice, or if such trade repository is unavailable, the European Securities and Markets Authority.

Trading Day: Any day on which the relevant markets are open for trading.

Trading Member: Any Person which:

- (i) negotiates Transactions in Derivatives and/or Securities Product Groups directly on a Regulated Market and/or MTF in one or both capacity of broker/dealer; and
- (ii) has entered into a Clearing Agreement with a General Clearing Member for the purpose of clearing such Transactions.

Trading Rules: The rules set forth by the relevant Market Undertaking.

Trading & Matching Platform: Any platform, designated as such by a Notice, providing a service for the execution or matching of Transactions which may be cleared by LCH SA.

Transaction(s): Any purchase, sale or exchange of Financial Instruments, carried out on a market operated by a Market Undertaking including a repurchase agreement or a securities loan or a buy and sell back, and the terms "buyer" and "seller" used in this Clearing Rule Book shall be construed accordingly.

Transfer of Open Positions: The process available for Clearing Members on Derivatives Markets by which a Clearing Member transfers:

- either the Open Positions registered in one of its Position Accounts, to another Position Account within its own Account Structure,
- or the Open Positions registered in one or several Position Accounts to the Account Structure of another Clearing Member.

Triparty Repo: Repo Transaction secured by collateralising Securities belonging to pre-defined Baskets, and governed by the provisions of Title V. The eligibility criteria for clearing of Triparty Repos are set out in a Notice.

Triparty Repo Interest Margin: In the framework of a Triparty Repo, is the amount calculated and called daily from the novation date by LCH SA to cover the cash interest until the maturity date of the Triparty Repo, including forward positions.

Variation Margin: The amount calculated by LCH SA, as specified in an Instruction at a frequency specified in such Instruction, to cover the negotiation risk and which is based on the revaluation of the Settlement Price of Clearing Member's Open Positions since the last calculation.

CHAPTER 2 - GENERAL PROVISIONS

Section 1.2.1 General

Article 1.2.1.1

This Clearing Rule Book sets out the principles and general conditions governing the organisation and operation of the clearing activities of LCH SA.

Article 1.2.1.2

General or specific decisions, which are provided by the Clearing Rule Book, to fall within the authority of LCH SA shall be adopted in accordance with the conditions established by the board of directors of LCH SA.

Article 1.2.1.3

Any general or specific decisions which LCH SA is required or permitted to take pursuant to the provisions of the Clearing Rules shall be taken in accordance with general principles of good faith and fair dealing, in a commercially reasonable manner, in accordance with high standards of integrity, and at an appropriate level of seniority.

Section 1.2.2 Interpretation and References

Article 1.2.2.1

References to any law, regulation or European directive or regulation shall be construed as those in force from time to time.

Article 1.2.2.2

Chapter or Section headings in this Clearing Rule Book or in the Instructions are for ease of reference only; they are not part of the content of the relevant Chapter or Section and may not in any way affect the interpretation thereof.

Article 1.2.2.3

Capitalised terms used in this Clearing Rule Book shall be construed to be of such number as the context admits or requires.

Article 1.2.2.4

Capitalised terms used in this Clearing Rule Book and not defined in Instructions or in other communications of LCH SA shall have the meaning as set forth in this Clearing Rule Book.

Article 1.2.2.5

The specific provisions dedicated to a market apply in addition to, and not in lieu of, the general provisions.

Article 1.2.2.6

In case of any inconsistency between the specific provisions dedicated to a market and general provisions, the specific provisions will prevail.

Article 1.2.2.7

The Clearing Rule Book shall be implemented and interpreted through Instructions and by Notices, issued by LCH SA and published in accordance with Section 1.2.4. Instructions and Notices shall not be used to amend the principles and general conditions set out in the Clearing Rule Book.

Article 1.2.2.8

For the avoidance of doubt, the provisions of the Clearing Rules which are applicable to Clearing Members shall also apply to Sponsored Members unless expressly stipulated otherwise.

Section 1.2.3 Clearing Rules Modifications

Article 1.2.3.1

The Clearing Rule Book may be modified from time to time by decision adopted by LCH SA.

Prior to implementing any material changes, LCH SA shall consult with all affected Clearing Members (including Special Clearing Members and Sponsored Members), and/or Agent Members, in accordance with the consultation process set-out in an Instruction.

Clearing Members and/or Agent Members will be informed with reasonable prior notice of each change in writing or by such other means as may be specified by LCH SA.

Article 1.2.3.2

If any modification of the Clearing Rules, other than a modification required by European Union or national law, materially adversely affects the rights or obligations of the Clearing Members and Agent Members generally or of any category of Clearing Members and/or Agent Members, then any Clearing Member or Agent Member so affected may terminate its membership by notification in writing given to LCH SA within 10 Clearing Days from the date of publication of the relevant modification.

Section 1.2.4 Publication and Effectiveness

Article 1.2.4.1

LCH SA shall ensure publication of the Clearing Rule Book, Instructions, Notices and other decisions of general application to its Clearing Members and Agent Members or to the relevant category of Clearing Members and Agent Members through dissemination via posting on its website, or individual notification as appropriate.

Article 1.2.4.2

Except in cases of emergency, such provisions shall become effective and binding on all Clearing Members and Agent Members upon the Clearing Day following the day of publication or at a later date as specified in such publication.

Section 1.2.5 Fees

Article 1.2.5.1

Clearing Members and Agent Members shall pay to LCH SA applicable Admission Fees, Clearing Fees and any other fees pursuant to the fee grid available on LCH SA web site and as modified from time to time.

Section 1.2.6 Currency

Article 1.2.6.1

If a specific currency is replaced by another currency, such as the euro for example, in pursuance of the amendment of existing legislation or the coming into effect of new legislation, the clearing of all the financial obligations of Clearing Members arising under the Clearing Rules and which are denominated in the currency that is replaced shall take place in the substitute currency as from the effective date of such replacement.

Article 1.2.6.2

If substitution of a specific currency involves a period of transition, clearing during this period of transition will take place in the currency as specified by LCH SA by Notice.

Article 1.2.6.3

If necessary, LCH SA shall establish the conversion rate of the substitute currency and the currency due to be replaced as well as the applicable rounding rules, subject to the applicable laws and regulations.

Article 1.2.6.4

LCH SA shall determine in a Notice the currency of the Financial Instruments which are cleared in another currency than Euro.

Section 1.2.7 Time Reference

Article 1.2.7.1

Where reference is made in the Clearing Rules to a time or deadline, it shall be understood to mean the Central European Time (CET).

CHAPTER 3- LEGAL FRAMEWORK

Section 1.3.1 Status and Activity of LCH SA

A. Status

A.1. Clearing House

Article 1.3.1.1

LCH SA is a clearing house within the meaning of Article L.440-1 of the French Monetary and Financial Code and acts as a central counterparty, between the Clearing Member of the buyer or the borrower and the Clearing Member of the seller or of the lender in the conditions described in the Clearing Rules. In this framework, LCH SA acts in accordance with applicable banking and financial regulations.

LCH SA is under the supervision of the Competent Authorities within the scope of their respective remit as granted by their national law.

LCH SA provides its services in accordance with recommendations from the ESCB (European System of Central Banks) and ESMA (the European Securities and Markets Authority) for central counterparties in the European Union and follows the best practices in Clearing Services.

Article 1.3.1.2

When a participant of an Allied Clearing House, or one of its clients, enters into a Transaction with a Clearing Member of LCH SA, or with one of its Clients:

- LCH SA acts as a central counterparty between its Clearing Member, pursuant to Chapter 3 of Title I on the one hand, and its Allied Clearing House, on the other hand, under the conditions defined by the Clearing Rules. The Open Positions of the Allied Clearing House in the books of LCH SA correspond to the Transactions carried out by its own participants, and;
- The Allied Clearing House acts as a central counterparty between its own participants and LCH SA, under the conditions defined by the Allied Clearing House's rules.

A.2. Securities Settlement System

Article 1.3.1.3

LCH SA has been notified to the European Commission as a system pursuant to the Settlement Finality Directive. Thus, as described in a Notice, any person with a legitimate interest can obtain information on LCH SA and its rules from its participants, upon request.

B. Scope of Activity

Article 1.3.1.4

In accordance with this Clearing Rule Book, and for Transactions eligible to novation pursuant to Article 1.3.1.6 below, LCH SA registers Transactions, calculates Open Positions of its Clearing Members, and the associated risk, calls Margin to cover this risk, guarantees the proper settlement of positions as central counterparty, manages the default procedures, transmits settlement instructions to the settlement provider and performs all other functions specified by the Clearing Rules.

Article 1.3.1.5

Transactions executed on any Regulated Market or MTF, or executed or matched on any Trading & Matching Platform, may give rise to novation by LCH SA provided that the Financial Instruments-in question comply with the following criteria:

- LCH SA has entered into an agreement, for the provision of Clearing Services in respect of the relevant Financial Instruments, with the Market Undertaking operating the Regulated Market, or the MTF or the operator of the Trading & Matching Platform on which the Financial Instruments are negotiated;
- The Financial Instruments are admitted for clearing under the terms of the relevant risk policy of LCH SA;
- Unless otherwise agreed by LCH SA, accommodating such Financial Instruments in the Clearing System does not involve additional substantial development costs;
- When the Financial Instruments are Securities or their underlying is a Security, such Securities are admitted for settlement by at least one of the CSDs of Reference or ICSDs with which LCH SA has entered into an agreement;
- Corporate events are capable of being managed by LCH SA;
- All necessary information as required by LCH SA from the relevant trading venue (including, but not limited to, all trade legs, pricing data, referential data and transaction data) in respect of the Transaction, shall have been provided in the form, and by the times, prescribed by LCH SA from time to time. Such information must be complete, must not be corrupted and must be legible at the time of receipt by LCH SA.

In addition to the above listed criteria the Regulated Market, the MTF or the Trading & Matching Platform may allow their members to opt for LCH SA novation or to exclude their Transactions from the Clearing Services.

The eligible novation criteria listed above also apply to rights attached to a Financial Instrument and deriving from corporate events in respect of such Financial Instruments.

In addition to the eligible novation criteria listed above, Transactions executed on any Regulated Market, or executed or matched on any Trading & Matching Platform by or on behalf of a Sponsored Member, may give rise to novation by LCH SA if the relevant Agent Member has provided its consent to the registration of the Transactions within the time period permitted for such consent to be provided, in accordance with the provisions of a Notice.

Article 1.3.1.6

Where so specified in a Notice, LCH SA can also clear off-exchange Transactions that are not executed on a Trading & Matching Platform.

Article 1.3.1.7

Any Transaction that does not comply with all the criteria mentioned in Article 1.3.1.5 is excluded from novation by LCH SA and therefore excluded from the scope of the Clearing Services globally described under Article 1.3.1.5 of the Clearing Rule Book.

Article 1.3.1.8

Without prejudice to Article 1.3.1.7 above, LCH SA may accept to register Transactions in Securities which have been entered into by Clearing Members (other than Clearing Members admitted as Sponsored Members) and do not comply with the criteria listed in Article 1.3.1.5 as long as they are admitted for settlement by at least one of the CSDs of Reference or ICSDs with which LCH SA has entered into an agreement. In such case, such Transactions do not give rise to novation and LCH SA may either send the relevant information for settlement to the relevant CSD of Reference or ICSD or make available to Clearing Members (other than Clearing Members admitted as Sponsored Members) the relevant information in respect of such settlement.

Article 1.3.1.9

In the event Financial Instruments or Transactions which were previously eligible for novation pursuant to Article 1.3.1.5 are declared no longer eligible, including if the risk policy is amended, a Notice will detail the Financial Instruments or Transactions concerned and will come into effect at least one Clearing

Day after communication thereof by LCH SA to the relevant Market Undertaking, trading venue or operator and Clearing Members.

Any Transaction novated pursuant to Article 1.3.2.1 prior to the entry into force of the amended risk policy will remain within the scope of the Clearing Services provided by LCH SA until its expiry date.

Section 1.3.2 General Clearing Principles

A. General

A.1. Novation and Irrevocability

Article 1.3.2.1

All Transactions complying with the criteria mentioned in Article 1.3.1.5 that are submitted to LCH SA, within the clearing hours as set out in a Notice are registered in the name of the Clearing Member. Upon registration, novation occurs. As a result of novation, LCH SA becomes counterparty to the Clearing Member and becomes therefore subject to the rights and subject to the obligations arising from the Transaction registered in the name of such Clearing Member.

Article 1.3.2.2

Any Transaction received by LCH SA from a Clearing Member, directly or indirectly through its Agent Member where applicable, pursuant to Article 1.3.2.1 is deemed irrevocable in the sense of Article L 330 1 § III of the French Monetary and Financial Code as soon as it is registered in the Clearing System in accordance with Article 3.1.1.1 and within the clearing hours as set-out in a Notice, without prejudice to the exception foreseen in Article 3.3.1.3.

Article 1.3.2.3

Submission by Clearing Members, directly or indirectly through their Agent Members where applicable, of Transactions complying with the criteria mentioned in Article 1.3.1.5 signifies the acceptance by such Clearing Members of the novation.

Article 1.3.2.4

Novation takes place on a gross basis with respect to the original Transactions.

A.2. Scope of LCH SA's Obligations

Article 1.3.2.5

In accordance with Article 3 of the Settlement Finality Directive, upon registration in the Clearing System, Trade Legs and netting shall be legally enforceable and shall be binding on third parties.

Upon registration and as a consequence of Article 3.1.1.1, LCH SA undertakes to fulfil its obligations to deliver or to pay each Clearing Member on the basis of Open Positions or Net Position Exposures, as applicable, registered in its name, per Financial Instrument or per Basket.

The fulfilment of such obligations is conditional upon the timely performance by such Clearing Member of its own obligations.

Article 1.3.2.6

Upon novation, the obligations that LCH SA undertakes to perform as counterparty to the relevant Clearing Members with respect to Transactions and as detailed in the relevant provisions of the Clearing Rules, cover:

- For Transactions in Securities: the payment of cash and the delivery of the Securities.
- For Transactions in option contracts:
 - payment of Option Premium pursuant to Transactions and of cash amounts resulting from exercise and assignment,
 - payment of cash and delivery pursuant to the settlement of positions in the underlying Financial Instruments or assets resulting from exercise and assignments.
- For Transactions in futures contracts (excluding commodities): payment of Variation Margin and, in the case of deliverable financial futures, delivery of the underlying Financial Instruments versus payment, or its cash settlement, as applicable.

- For Transactions in commodities futures contracts :
 - payment of Variation Margin;
 - payment of the amount due to the selling Clearing Member; and
 - delivery of commodities to the buying Clearing Member.

- For Repos: For both Initial Transactions and Return Transactions, payment of cash and delivery of the debt Securities. For Return Transactions payment of cash includes applicable interest.

- For Triparty Repos:
 - to the Cash Lender, payment of the total interest amount corresponding (a) to the cash amount traded pursuant to the terms of the initially traded contract, irrespective of the cash amount effectively settled in the case of a Securities allocation fail, and (b) to the cash amount effectively settled in the case of a cash settlement fail;
 - to the Cash Borrower, receipt of a cash amount equivalent to the collateralising Securities effectively settled;
 - to the Cash Borrower and Lender, return of the amount of cash or collateralising Securities effectively paid or settled.

The circumstances in which LCH SA performs its delivery obligation, including delivery at a later time than the time originally specified, are set out in the applicable Instructions.

Article 1.3.2.7

For Open Positions settled through payment of a price difference, the LCH SA obligations as described in Article 1.3.2.6 apply to such difference.

Article 1.3.2.8

For commodities future contracts, the performance of the obligations described in Article 1.3.2.6 will take the form of a cash compensation to be calculated and applied in accordance with an Instruction.

If the Clearing Members opt for the alternative delivery procedure, as described in Article 3.4.1.11, LCH SA is discharged from performing its obligations as described in Article 1.3.2.6.

Article 1.3.2.9

If LCH SA is unable to deliver a given Financial Instrument, as a result of the market conditions, LCH SA will notify the relevant Clearing Member accordingly, as well as its Agent Member if any. In such case, LCH SA will pay a cash amount in lieu of delivery of the Financial Instrument or the assets involved. The amount will be calculated on the basis of the market price of the Financial Instrument according to a formula and a method of calculation to be specified in an Instruction.

For the avoidance of doubt, this Article shall not apply to Triparty Repos.

Article 1.3.2.10

Unless otherwise stated in the Clearing Rule Book, the netting of Clearing Members' obligations with those of LCH SA is not permitted.

A.3. General Clearing Process

Article 1.3.2.11

Unless otherwise specified in the Clearing Rule Book, at the end of the Clearing Day or at such other time as may be published in a Notice, LCH SA aggregates Transactions with respect to payment of cash or delivery of Securities⁷ into Open Positions.

Article 1.3.2.12

Unless otherwise specified in the Clearing Rule Book, LCH SA sends the requisite delivery and/or payment instructions once calculated in accordance with Article 1.3.2.11 and per Financial Instrument, to the relevant central Securities depository or Securities settlement system.

The rules of the relevant central Securities depository or Securities settlement system apply with respect to transmission of such delivery and payment instructions to the central Securities depository or Securities settlement system.

In the event of settlement failure, the unsettled position is managed in accordance with the provisions on Net Fails in Chapter 4 of Title III of this Clearing Rule Book

A Notice will give details of the timeframe in which such delivery and payment instructions are sent to each central Securities depository or Securities settlement system. LCH SA is discharged of its obligations towards Clearing Members once payment and settlement have occurred.

The payment of funds and delivery of Securities are linked so as to occur on a simultaneous basis.

B. Provisions Related to Financial Instruments Traded on Markets Operated by Euronext Brussels

Article 1.3.2.13

The Belgian Common Civil Law Provisions are applicable for determining the moment of the transfer of ownership of Financial Instruments bought, sold or exchanged pursuant to a Transaction.

C. Provisions Related to Transactions on Derivatives

Article 1.3.2.14

For the purpose of compliance with MiFID2/MiFIR, details on the information needed by LCH SA from Market Undertakings in order to clear Transactions on Derivatives, and the format in which that information shall be provided, are described in a Notice.

Section 1.3.3 Liability and Force Majeure

A. Liability of Clearing Members and Agent Members

Article 1.3.3.1

A Clearing Member shall be liable for any damages suffered by LCH SA as a direct consequence of the Clearing Member's breach of the Clearing Rules resulting in LCH SA having to satisfy its obligation under Article 1.3.2.6 and as provided for in the Clearing Rules, without any notice of default by LCH SA being required.

Such damages may include without limitation any one or more of the following: interest, exchange rate differences, purchase price.

For the avoidance of doubt, the provisions of this Article do not apply in case of a Special Clearing Member Event, which consequences are described in Articles 2.5.4.1. and seq.

Article 1.3.3.2

A Clearing Member will not be held liable for any detrimental consequences of abnormal or fraudulent use of the Clearing System or for any detrimental consequences of acts or omissions of third parties.

Article 1.3.3.3

The Clearing Member shall take all reasonable care in the selection and monitoring of any Person that is to act on its behalf.

Article 1.3.3.4

An Agent Member shall be liable for any damages suffered by LCH SA as a direct consequence of the Agent Member's default as provided for in the Clearing Rules (including, without limitation, an Agent Close-out Event), without any notice of default by LCH SA being required, but will not be held liable for any detrimental consequences of abnormal or fraudulent use of the Clearing System or for any detrimental consequences of acts or omissions of third parties.

The Agent Member shall take all reasonable care in the selection and monitoring of any Sponsored Member for which it acts as an Agent Member.

B. Liability of LCH SA

Article 1.3.3.5

LCH SA ensures the delivery of Securities or the payment of cash, in accordance with the Clearing Rule Book following the registration of Transactions provided in Article 1.3.2.2 and the clearing of obligations deriving thereto as provided in Article 1.3.2.6, save in the event of a force majeure or third party action.

Article 1.3.3.6

The buying Clearing Member can make no claim for compensation in respect of late delivery of Securities other than as provided for in the Clearing Rules or where such late delivery results from a failure on the part of LCH SA itself.

The buying Clearing Member's Open Positions are no longer admitted for clearing once it has taken delivery of the relevant Securities from either LCH SA or the selling Clearing Member.

Article 1.3.3.7

For obligations other than the obligation to deliver Securities or pay cash amounts as referred to in Article 1.3.3.5 above, LCH SA is only accountable for obligations of means ("*obligation de moyens*").

In particular, LCH SA may under no circumstances be held liable for the above mentioned damages, unless such damages are direct result of gross negligence or a deliberate act or omission on the part of LCH SA.

Article 1.3.3.8

LCH SA may under no circumstances be held liable for direct or consequential loss suffered by any Clearing Member or Agent Member including without limitation loss of business, profits or revenues believed by the Clearing Member or Agent Member to be the consequence of a total or partial failure by LCH SA to perform, its obligations in accordance with the Clearing Rules or the Admission Agreement.

Article 1.3.3.9

If a Clearing Member or Agent Member does not comply with its material obligations, as provided for in the Clearing Rule Book or in the Admission Agreement or in case of suspension of payments, scheme of arrangement, safeguard, or receivership of the Clearing Member or Agent Member, or any other equivalent amicable or legal procedure commenced pursuant to the law of jurisdictions other than France, LCH SA may cease to perform all its obligations with respect to the Clearing Member or Agent Member in question, notwithstanding implementation of the measures provided for in Chapters 5 and 6 of Title IV of the Clearing Rule Book. In particular, following an Event of Default or Agent Close-out Event, LCH SA will act promptly in the manner LCH SA deems most appropriate to contain its exposure and mitigate consequences for market participants.

In such events, LCH SA may not be held liable for any detrimental consequence save in the case of gross negligence or deliberate act or omission. In particular, following an Event of Default or Agent Close-out Event, implementation of measures provided for in Chapters 5 and 6 of Title IV, as the case may be, cannot result in any liability for LCH SA (a) in respect of the failing Clearing Member or Agent Member, including in connection with (i) process and conditions for liquidating Trade Legs, Open Positions or Affected Open Positions or (ii) the selling or liquidation of Margins or any other Collateral and (b) in respect of the Defaulting Clearing Member or Affected Agent and non-defaulting Clearing Members and Non-Affected Agent Members regarding the triggering of any call on the Default Fund.

For the avoidance of doubt, the provisions of this Article 1.3.3.9 apply to Special Clearing Members on the basis that as far as Special Clearing Members are concerned the references in this Article 1.3.3.9 to an Event of Default should read as references to a Special Clearing Member Event and references to Chapter 5 of Title IV as references to Section 2.5.4 of Chapter 5 of Title II of the Clearing Rule Book.

Article 1.3.3.10

Furthermore, LCH SA may not be held liable for any breach by a Clearing Member or Agent Member of its obligations, to segregate client and house assets, notably in securities settlement systems or central securities depositories in accordance with applicable law and regulations. LCH SA only sends delivery

and payment instructions to the account indicated by the Clearing Member or Agent Member irrespective of such account beneficiary.

Article 1.3.3.11

LCH SA may not be held liable for (i) any detrimental consequences of abnormal or fraudulent use of the Clearing System or for any detrimental consequences of acts or omissions of third parties, or (ii) any loss or damage suffered by a Sponsored Member or Agent Member as a direct or indirect result of their own respective relationship and the services provided by the Agent Member to the Sponsored Member.

Article 1.3.3.12

LCH SA shall take reasonable care in the selection and monitoring of any third party which may act on its behalf.

C. Force Majeure

Article 1.3.3.13

Force majeure is to be construed in accordance with French law, meaning extraordinary events independent of the Parties' will, which cannot be foreseen or avoided even with due diligence, being beyond their control and preventing them from fulfilling their obligations pursuant to the Clearing Rules or the Admission Agreement.

Such events include inter alia, disasters, such as hurricane, earthquake, international conflicts, stroke of lightning and war.

If circumstances as referred to in the previous paragraph arise or are, likely to arise, LCH SA or Clearing Members, or Agent Members, as the case may be, will take such measures as may be reasonably expected of them in order to limit as much as possible the detrimental consequences for the other party resulting from such circumstances.

Section 1.3.4 Confidentiality

Article 1.3.4.1

LCH SA may in accordance with applicable statutory provisions provide any information it may have to Competent Authorities.

Where a Clearing Member or Agent Members, is also a member of a Regulated Market, MTF, or clearing house with whom LCH SA has entered into an agreement to clear Transactions, or to grant mutual access, such as an Allied Clearing House, LCH SA may likewise, and under the same conditions, pass any such information to such Regulated Market, MTF or Allied Clearing House.

Article 1.3.4.2

Upon request, LCH SA may provide Competent Authorities or National Treasury Agencies with information related to Net Fails in respect of Clearing Members. Any such disclosure to the National Treasury Agencies may only take place if the National Treasury Agencies are able to justify that a valid authorisation has been given by the relevant Clearing Members to LCH SA.

Article 1.3.4.3

Without prejudice to any monitoring and auditing powers granted by law to other bodies, LCH SA has an obligation in accordance with applicable statutory or regulatory provisions, to prevent or limit any fraudulent, illicit or irregular acts.

Article 1.3.4.4

Notwithstanding any other provision to the contrary, LCH SA shall be authorised to supply any information whatsoever concerning an Agent Member, a Clearing Member or its Clients or a Trading Member or Associated Trading Member and its or their trading activity to LCH Group Limited, LCH Ltd, LCH LLC or any other sub-contracting entity belonging to the same Financial Group.

Article 1.3.4.5

Sponsored Members recognise and agree that their Agent Member will disclose, and may be requested by LCH SA to disclose, to LCH SA confidential information relating to their Sponsored Members, including without limitation information relating to the solvency of their Sponsored Members. Sponsored Members expressly consent to such disclosure by their Agent Member and to the use of such confidential information by LCH SA.

Section 1.3.5 Applicable Law**Article 1.3.5.1**

The Clearing Rules shall be governed by and construed in accordance with the laws of France unless explicitly stated otherwise.

Section 1.3.6 Disputes**Article 1.3.6.1**

Any dispute between LCH SA and a Clearing Member or Agent Member that may arise under the Clearing Rules shall be finally settled through the French courts or arbitration centre referred to in the Admission Agreement, subject to the complaints resolution procedure as set out in an Instruction.

Article 1.3.6.2

A Clearing Member or Agent Member shall, in accordance with Articles 1.3.3.5 *et seq.*, notify LCH SA of any claim within twelve (12) months from the Clearing Day on which the Clearing Member or Agent Member becomes aware, or should have become aware of the occurrence of any event that may result in loss or damages.

CHAPTER 4 – LCH SA DEFAULT

Article 1.4.1.1

An LCH SA default shall occur if at any time:

- (i) except where such failure to pay is permitted or where LCH SA is acting in accordance with Title IV Chapters 5 or 6, LCH SA fails to make a payment due by LCH SA to a Clearing Member (other than to a Defaulting Clearing Member) or any of its Agent Members (other than an Affected Agent Member) under any novated Transaction, and such failure has not been cured within 30 days from the date when the obligation to pay fell due; or
- (ii) LCH SA becomes subject to LCH Insolvency Proceedings duly notified by the French prudential control and resolution authority (*Autorité de contrôle prudentiel et de résolution*) pursuant to Article R.613-18 of the French Monetary and Financial Code.

Article 1.4.1.2

In the event of an LCH SA default occurring pursuant to Article 1.4.1.1 (i) the relevant Clearing Member may notify LCH SA in writing specifying a Termination Date, which shall be the TARGET Settlement Day following the occurrence of such an LCH SA default, for the termination and liquidation of all Trade Legs and/or Open Positions, as relevant, registered in its Account Structure.

Article 1.4.1.3

In the event of an LCH SA default pursuant to Article 1.4.1.1 (ii), LCH SA will make available a notice on its Website specifying the Termination Date, which shall be the TARGET Settlement Day following the occurrence of such an LCH SA default. Upon the occurrence of a Termination Date, a Clearing Member other than a Defaulting Clearing Member may exercise the right given to it under Articles 1.4.1.4. *et seq.*

Where LCH SA fails to make available such notice on its Website:

- (i) by 19:00 on the Clearing Day following the Clearing Day on which LCH SA becomes subject to LCH Insolvency Proceedings pursuant to Article 1.4.1.1 (ii); or
- (ii) where LCH SA becomes subject to an LCH Insolvency Proceeding pursuant to Article 1.4.1.1 (ii) after 19:00 on a Clearing Day or on a day which is not a Clearing Day, by 19:00 on the second Clearing Day following that day,

then each individual Clearing Member shall be entitled, by notice in writing to LCH SA, to designate a Termination Date.

Article 1.4.1.4

As from the Termination Date, neither LCH SA nor any Clearing Member (other than a Defaulting Clearing Member) having exercised its rights pursuant to Articles 1.4.1.2 or 1.4.1.3 (or, if such Clearing Member has been admitted as a Sponsored Member, any of its Agent Members) shall be obliged to make any further payment or delivery under any Trade Leg or Open Position, as the case may be, between them which would, but for this Title I Chapter 4, have fallen due for performance on or after the Termination Date.

Such obligations shall be satisfied by settlement (whether by payment, set-off or otherwise) of the Termination Amount.

Article 1.4.1.5

Following an LCH SA default pursuant to the conditions of Article 1.4.1.1, the Clearing Member other than a Defaulting Clearing Member, having exercised its rights pursuant to Article 1.4.1.2 or 1.4.1.3, determines (or, if such Clearing Member has been admitted as a Sponsored Member, may nominate one of its Agent Member to determine) on the Termination Date or as soon as possible after such date (discounting if appropriate):

- (i) its total loss or total gain, as the case may be, in respect of each Trade Leg or Open Position, as relevant, (in each case expressed in Euro); and
- (ii) the value of all other amounts which it owes to LCH SA and which LCH SA owes to it, in each case whether future, liquidated or unliquidated, actual or contingent (excluding, for the avoidance of doubt, (a) where the Clearing Member has also been admitted as an Agent

Member, the value of the Collateral recorded on any Agent Collateral Account opened in its name and (b) where the Clearing Member has been admitted as a Sponsored Member, the value of the Collateral recorded on any Agent Collateral Account opened in the name of its Agent Member).

Pursuant to Article 1.4.1.9 below, such calculation shall be undertaken separately in respect of the Trade Legs, or Open Positions as applicable, and all other amounts owed in relation to Trade Legs, or Open Positions registered in (i) the House Account Structure or (ii) an Individual Segregated Account Structure or (iii) an Omnibus Segregated Account Structure of the Clearing Member.

Article 1.4.1.6

For the purposes of Article 1.4.1.5 (i), the Clearing Member calculates (or, if such Clearing Member has been admitted as a Sponsored Member, may nominate one of its Agent Members to calculate) (in a commercially reasonable manner) its total loss or its total gain, as the case may be, in respect of each Trade Leg or Open Position, as relevant, as a result of the termination of each payment or delivery which would otherwise have been required to be made under the relevant Trade Leg or Open Position, as relevant and including, if appropriate, any loss of bargain, any cost of funding, and/or without duplication, any loss or, as the case may be, gain as a result of the termination, liquidation, obtaining, performing or re-establishing of any hedge or related trading position.

Article 1.4.1.7

For the purpose of the calculation to be made pursuant to Article 1.4.1.5 (ii), the Clearing Member will determine (or, if such Clearing Member has been admitted as a Sponsored Member, may nominate one of its Agent Members to determine) the value of all Collateral that, as of the Termination Date, LCH SA is due to return to it in accordance with the Clearing Rules without applying any haircuts to such valuation. In making such determination, the Clearing Member (or its nominated Agent Member, as the case may be) will not separately value and will not take into account, as an amount due to it, any Collateral:

- (i) in respect of which the value has been accounted for in determining of any profit or loss on any Trade Leg or Open Position, as-applicable;
- (ii) which the Clearing Member has transferred to LCH SA other than on a full title transfer basis and which the Clearing Member will receive back in accordance with the Clearing Rules; or
- (iii) which, if the Clearing Member is a Defaulting Clearing Member, has been deposited by a Defaulting Clearing Member to meet (a) its Margin requirement (other than Variation Margin) calculated in respect of its House Margin Account(s) or as a contribution to the relevant Default Fund(s) and which LCH SA has applied or will be required to apply in order to reduce its loss in accordance with Article 4.5.2.7 or (b) its Margin requirement (other than Variation Margin) calculated in respect of its Client Margin Account(s) which will be transferred to a new Clearing Member as provided in an Instruction, or, in case of liquidation, returned to the Client or Indirect Client, when applicable, as provided in an Instruction.

Article 1.4.1.8

Pursuant to the determination made under Article 1.4.1.5:

- (i) each gain by the Clearing Member and each amount which LCH SA owes to it, shall be treated as a positive amount; and
- (ii) each loss suffered by the Clearing Member and amounts which it owes to LCH SA shall be treated as a negative amount.

Article 1.4.1.9

The Clearing Member shall :

- (i) aggregate (or, if such Clearing Member has been admitted as a Sponsored Member, may nominate one of its Agent Members to aggregate) all positive and negative amounts-related to House Trade Legs or House Open Positions to produce one net termination amount (the "**House Termination Amount**"), and
- (ii) aggregate: (a) all positive and negative amounts related to Client Trade Legs or Client Open Positions registered in an Individual Segregated Account Structure to produce one net termination amount for such Individual Segregated Account Structure; and (b) all positive

and negative amounts related to Client Trade Legs or Client Open Positions registered in an Omnibus Segregated Account Structure to produce one net termination amount for such Omnibus Segregated Account Structure (each a "**Client Termination Amount**").

To the extent a Clearing Member is also a member of the CDSClear service(s) provided by LCH SA, such Clearing Member shall aggregate the House Termination Amount and the house termination amount calculated in respect of a house account structure held in connection with such CDSClear service(s) where LCH SA is subject to a default in accordance with the Clearing Rules and the rules applicable to CDSClear, in order to produce one net termination amount owed in relation to the Clearing Service and such CDSClear service(s) provided by LCH SA (the "**Global House Termination Amount**").

The Clearing Member shall notify (or, if such Clearing Member has been admitted as a Sponsored Member, may nominate one of its Agent Members to notify) LCH SA of the House Termination Amount and, where relevant, the Client Termination Amount(s), by which party each such amount is payable, and showing in reasonable detail how they have been calculated, immediately after the calculation thereof. The Global House Termination Amount shall be notified in accordance with the clearing rules governing the service(s) provided by LCH SA in respect of CDSClear.

If any of the House Termination Amount or Global House Termination Amount if applicable, or the Client Termination Amount(s) calculated pursuant to this Chapter 4 is a positive amount, LCH SA shall pay it to the Clearing Member and, if any of the House Termination Amount or Global House Termination Amount if applicable, or the Client Termination Amount(s) is a negative amount, the Clearing Member shall pay it to LCH SA, in accordance with Article 1.4.1.10 below.

Article 1.4.1.10

The House Termination Amount (to the extent not aggregated into the Global House Termination Amount) or Client Termination Amount(s) in respect of each Clearing Member shall be paid by either LCH SA or the Clearing Member, as the case may be, in Euro by 17:00 on the Clearing Day following notification pursuant to Article 1.4.1.9 above (converted as required by Applicable Law into any other currency, any costs of such conversion to be borne by, and (if applicable) deducted from any payment to, LCH SA). Neither LCH SA nor a Clearing Member, as the case may be, shall be permitted to effect payment netting between the House Termination Amount or Global House Termination Amount if applicable, on the one hand and the Client Termination Amounts on the other hand.

The Global House Termination Amount shall be paid in accordance with the clearing rules governing the service(s) provided by LCH SA in respect of CDSClear.

Article 1.4.1.11

Following an LCH SA default pursuant to the conditions of Article 1.4.1.1, the Agent Member of the Sponsored Member having exercised its rights pursuant to Article 1.4.1.2 or 1.4.1.3, shall determine on the Termination Date or as soon as possible after such date:

- (i) the value of any cash Collateral balance provided by such an Agent Member and Agent Buffer held by LCH SA in respect of the obligations of such an Agent Member in connection with the relevant Sponsored Member (including, for the avoidance of doubt, the value of the Collateral recorded on any Agent Collateral Account opened in its name and related to the relevant Sponsored Member but excluding such Collateral which LCH SA has applied or will be required to apply in order to reduce its loss in accordance with Article 4.5.2.7 or is entitled to retain and use according to the Agent Close-out MP pursuant to an Instruction); and
- (ii) the value of any amounts which it owes to LCH SA with respect to its activities as an Agent Member in relation to the relevant Sponsored Member.

Pursuant to such determination, the Agent Member shall treat any amount due and payable by LCH SA to it as a positive amount, and any amount due and payable by it to LCH SA as a negative amount, and shall aggregate those amounts to produce one net termination amount (the "**AM Termination Amount**").

To the extent that the Agent Member is also a Clearing Member and/or a member of the CDSClear service(s) provided by LCH SA, such Agent Member shall aggregate the AM Termination Amount and the House Termination Amount or Global House Termination Amount as the case may be, in order to

produce one net termination amount owed in relation to the Clearing Service and such CDSClear service(s) provided by LCH SA (the “**Global AM Termination Amount**”).

The AM Termination Amount or Global AM Termination Amount as the case may be, shall be notified by the Agent Member to LCH SA in accordance with Article 1.4.1.9 and shall be paid by either LCH SA or the Agent Member, as the case may be, in accordance with Article 1.4.1.10.

Neither LCH SA nor an Agent Member which is also a Clearing Member and/or a member of the CDSClear service(s) provided by LCH SA, as the case may be, shall be permitted to effect payment netting between the AM Termination Amount or Global AM Termination Amount if applicable, on the one hand, and the Client Termination Amounts on the other hand.

Article 1.4.1.12

For the purposes of any calculation required to be made under this Chapter 4, the Clearing Member or Agent Member may convert amounts denominated in any other currency into Euro at such rate prevailing at the time of the calculation as it shall reasonably select.

Article 1.4.1.13

The Clearing Member's and Agent Member's rights under this Chapter 4 shall be in addition to, and not in limitation or exclusion of, any other rights which the Clearing Member and Agent Member may have.

Article 1.4.1.14

This Chapter 4 shall be without prejudice to the rights that LCH SA may have pursuant to the Clearing Rules against any Clearing Member or Agent Member prior to the occurrence of the LCH SA default.

CHAPTER 5 – WINDING DOWN

Article 1.5.1.1

LCH SA shall be entitled to cease all its activities with immediate effect, following the occurrence of:

- a closing down of all of its Clearing Services, following one or several Event(s) of Default,
- a decision by the Autorité de Contrôle Prudentiel et de Résolution or a court decision which forces LCH SA to cease its activities (in this latter case, LCH SA may apply close out all its Clearing Services pursuant to the service closure process applicable to each service and as described in an Instruction).

TITLE II – MEMBERSHIP

Article 2.0.0.1

Clearing Members and Agent Members shall at all times comply with the requirements set out in this Chapter and any additional conditions and limitations imposed upon admission as Clearing Member or Agent Member respectively, and with any provision of the Clearing Rules.

Article 2.0.0.2

The provisions of this Title which are applicable to Clearing Members clearing Transactions carried out either on a Regulated Market or on a MTF may be extended by LCH SA to Clearing Members clearing Transactions in Financial Instruments executed on a market which has neither the status of a Regulated Market, nor of an MTF, if all Financial Instruments that may be traded on such market are traded elsewhere on a Regulated Market.

CHAPTER 1- GENERAL PROVISIONS

Section 2.1.1 Participants

Article 2.1.1.1

As a securities settlement system within the meaning of the Settlement Finality Directive, LCH SA has only direct participants which are its Clearing Members, its Allied Clearing Houses and its Agent Members. It does not have indirect participants.

A. Clearing Members

Article 2.1.1.2

- I. The following entities are eligible to become a Clearing Member, pursuant to Article L 440-2 of the French Monetary and Financial Code:
 1. Credit Institutions and Investment Firms, which have their head office in France, as well as French branches of Credit Institutions having their head office in a State which is neither a European Union Member State nor a party to the agreement on the European economic area;
 2. Credit Institutions and Investment Firms which have their head office or, in the absence of head office, effective direction of the business in a European Union Member State or in another State party to the agreement on the European economic area other than France;
 3. Legal persons whose members or shareholders have unlimited joint and several liability for their debts and obligations, provided that such members or shareholders are institutions or firms mentioned under 1 and/or 2 above;
 4. Legal persons having their head office in metropolitan France or in French overseas departments or in the department of Mayotte or Saint Barthelemy or Saint Martin and whose principal or sole purpose is the clearing of Financial Instruments;
 5. Subject to conditions set out in the general regulations of the Autorité des Marchés Financiers, Credit Institutions and Investment Firms other than those mentioned in 1 and 2 above and legal persons whose principal or sole purpose is the clearing of Financial Instruments, that are not established in metropolitan France or in French overseas departments or in the department of Mayotte or Saint Barthelemy or Saint Martin;
 6. International financial organisations or bodies, public authorities or publicly guaranteed undertakings, which are not mentioned in paragraphs 1 to 5 above and designated in a decree of the Minister of Economy on an individual basis or by category, and central banks;
- II. The following entities are eligible to become a Sponsored Member:
 1. The entities mentioned in paragraph I above ;
 2. Pension funds and insurance companies which satisfy the conditions set out in paragraph 7 of Article L 440-2 of the French Monetary and Financial Code.

Article 2.1.1.3

A Clearing Member is a legal person or undertaking, admitted as such by LCH SA and authorised, subject to the Clearing Rules, to submit Transactions for registration, pursuant to an Admission Agreement between LCH SA and itself.

Article 2.1.1.4

A Clearing Member can operate with such status as:

- (i) an Individual Clearing Member, including a Special Clearing Member, or a Sponsored Member, as the case may be; or
- (ii) a General Clearing Member.

B. Allied Clearing Houses

Article 2.1.1.5

An Allied Clearing House is a legal person, incorporated in a Member State, which is a Credit Institution or an investment firm or whose principal or sole object is the clearing of Financial Instruments, which is recognised and supervised/overseen as a central counterparty clearing house by its Competent Authorities and which has signed an agreement with LCH SA for this purpose. An Allied Clearing House is a Participant, authorised by LCH SA to submit Transactions for registration under the conditions set-out below.

The admission of an Allied Clearing House is subject to the prior approval of Autorité des Marchés Financiers.

Article 2.1.1.6

Vis-à-vis LCH SA, an Allied Clearing House is subject, at all times, to the same rights and obligations as a General Clearing Member on the same market.

In the conditions set out in Article 2.1.1.7, on a case-by-case basis, this Clearing Rule Book or an Instruction can depart from such principle and set out specific provisions applicable to an Allied Clearing House with respect to the following subjects:

- (i) Information with the exception of financial reporting;
- (ii) On-site inspections/audit obligations;
- (iii) Authorised Clearing Operators' obligations;
- (iv) Default Fund contribution obligations as well as Collateral to fulfil them;
- (v) Consequences of Events of Default of Clearing Members for Allied Clearing Houses;
- (vi) Definition and management of Events of Default of an Allied Clearing House and their impact on Clearing Members;
- (vii) Buy-in and sell-out procedures;
- (viii) Payment of fees ; and
- (ix) Debt Securities Intra-day Margin.

Article 2.1.1.7

LCH SA can only apply specific conditions to an Allied Clearing House after having assessed, and subject to verifying on a continuous basis that:

- (i) Adequate resources and risk management measures, and international recommendations and standards applicable to a central counterparty, are implemented, if need be, so that LCH SA's operational, credit or liquidity risks are not increased compared to the risks stemming from the participation of a General Clearing Member having the same Open Positions;
- (ii) LCH SA maintains adequate and sufficiently liquid financial resources to ensure a timely discharge of its obligations vis-à-vis its Participants;
- (iii) The Allied Clearing House's financial resources are adequate and sufficiently liquid to ensure a timely discharge of its obligations vis-à-vis LCH SA.

C. Sponsored Members

Article 2.1.1.8

No Transaction can be registered in the name of a Sponsored Member, unless such Sponsored Member has appointed and maintains at least one Agent Member to perform the Agent Member Services and has notified LCH SA of:

- (i) the appointment of at least one Agent Member (whether or not an existing Agent Member of that Sponsored Member) who has elected to perform:
 - (a) the Back-up Agent Services on the occurrence of an Agent Close-out Event in respect of an Agent Member that is performing Agent Member Services, and where applicable,
 - (b) the Back-up Paying Agent Services on the occurrence of a Paying Agent Resignation in respect of the Agent Member that is performing the Payment Services, for such Sponsored Member; or
- (ii) confirmation that the Sponsored Member has elected to perform the Back-up Agent Services itself on the occurrence of an Agent Close-out Event in respect of the Agent Member that is performing the Agent Member Services, and where applicable, has elected to perform the Back-up Paying Agent Services on the occurrence of a Paying Agent Resignation in respect of the Agent Member that is performing the Payment Services.

Article 2.1.1.9

Where an Agent Member performing the Agent Member Services ceases to have Agent Member status of LCH SA, whether due to an Agent Close-out Event or where LCH SA has terminated its Agent Member status and a Non-Affected Agent Member commences providing the Back-up Agent Services; if such Non-Affected Agent Member ceases to have Agent Member status of LCH SA, the Affected Sponsored Member must appoint a new Agent Member to perform the Back-up Agent Services by the close of business on the next Clearing Day after the date of the Agent Close-out Event or of the termination, as applicable.

Article 2.1.1.10

The Sponsored Member joins LCH SA as a clearing member as described in Article 2.14 of EMIR and as such is fully responsible for discharging the financial obligations that arise from its participation in LCH SA. The Sponsored Member is required to discharge the obligations that arise from its participation as a Clearing Member of LCH SA, including nominating an Agent Member that will provide the Agent Member Services and will perform its obligations pursuant to the Clearing Rules including but not limited to the payment of Contributions with respect to the Transactions registered in the name of its Sponsored Member(s) with LCH SA and attributed to the Agent Member.

A Sponsored Member that does not meet its Sponsored Member obligations pursuant to the Clearing Rules (including when its Agent Member is in default ('Agent Close-out')) may be declared in default by LCH SA in accordance with the Clearing Rules.

D. Agent Members

Article 2.1.1.11

A Credit Institution which is eligible to become an Agent Member, on the basis of Articles L. 440-2 and L. 330-1 of the French Monetary and Financial Code, may apply for membership as Agent Member subject to satisfaction of all applicable requirements.

Article 2.1.1.12

An Agent Member may, pursuant to an Agent Member Admission Agreement between LCH SA and itself, act:

- (i) as an Agent Member providing the Agent Member Services to its corresponding Sponsored Member(s); and
- (ii) if applicable, as an Agent Member providing the Back-up Agent Services to its corresponding Sponsored Member(s); and
- (iii) if applicable, as an Agent Member providing the Back-up Paying Agent Services to its corresponding Sponsored Member(s).

Article 2.1.1.13

An Agent Member shall act and provide the Agent Member Services and, if applicable, Back-up Agent Services and/or Back-up Paying Agent Services only in connection with Transactions entered into by a Sponsored Member that is eligible to have such Transactions registered in its name from time to time and attributed to such Agent Member.

Article 2.1.1.14

An Agent Member shall act and provide the Back-up Agent Services and where applicable, the Back-up Paying Agent Services in accordance with the Clearing Rules only where there has been an Agent Close-out Event or where applicable, a Paying Agent Resignation, and in connection with Transactions that its corresponding Sponsored Member has registered at the time of the related Agent Close-out Event or where applicable, Paying Agent Resignation, and/or subsequently registers, and attributed to such Affected Agent Member or where applicable, Resigning (Payment Services) Agent Member.

Article 2.1.1.15

LCH SA shall determine whether an application for Agent Member status is approved. If, in its absolute discretion, LCH SA determines that an Agent Member no longer meets the relevant eligibility criteria for acting as an Agent Member, including where an Agent Close-out Event has occurred, LCH SA may suspend or terminate that Agent Member's membership as an Agent Member.

If a Sponsored Member has its eligibility to have Transactions of certain categories registered in its name rescinded by LCH SA, the eligibility of the Agent Member to act as an Agent Member of such Sponsored Member in connection with such categories of Transactions shall also be deemed to be rescinded, but without prejudice to the Agent Member's right to, subject to the Clearing Rules, act as an Agent Member of the Sponsored Member in connection with the categories of Transactions in respect of which the Sponsored Member does meet the eligibility criteria

Article 2.1.1.16

An Agent Member acts for each of its corresponding Sponsored Member(s) in connection with any Transaction registered in the name of such Sponsored Member(s) with LCH SA and attributed to the Agent Member, but shall be fully liable for all obligations to LCH SA that it has under the Clearing Rules in connection with such Transactions and the Agent Member Services and, if applicable, Back-up Agent Services and/or Back-up Paying Agent Services.

In performing its obligations and exercising its rights under the Clearing Rules, LCH SA shall take no account of any right or interest which any person other than:

- (i) a Sponsored Member or its corresponding Agent Member may have in any Collateral transferred by such Agent Member to LCH SA; and
- (ii) a Sponsored Member or its corresponding Agent Member may have in any Contributions such Agent Member has made for such Sponsored Member.

Section 2.1.2 Application Procedure

Article 2.1.2.1

Subject to completion of the procedure published on LCH SA's website, the Applicant shall complete LCH SA's application file which is available on LCH SA's website and shall provide all documents listed in the application file as well as other documentation or information required by LCH SA.

In the event that incomplete or unsatisfactory information is contained in the application file, additional information and/or documents may be requested by LCH SA from the Applicant.

The application file specifies, *inter alia*, the Product Group, as set-out in an Instruction, and the membership category (ICM, in which case the application file specifies whether the Applicant will be acting as a Special Clearing Member or as a Sponsored Member, GCM and/or Agent Member) the Applicant is applying for.

Whilst the application is pending, the Applicant must notify LCH SA in writing of any changes relating to:

- (i) the items to be included in the application file;
- (ii) information contained in the application file ; and
- (iii) any facts and circumstances concerning the Applicant which may be relevant in the context of its ability to perform its obligations under the Clearing Rules.

Article 2.1.2.2

LCH SA shall examine the information in the application file within two months from the date of receipt of the complete application file, including any additional information required by LCH SA.

LCH SA shall notify the Applicant of its admission decision.

Article 2.1.2.3

In approving an application, LCH SA may impose additional conditions and/or limitations on the exercise of certain rights under the Clearing Rules provided that such conditions and/or limitations are imposed without discrimination and only to the extent that its objective is to control the risk for the clearing house.

Membership approval is granted for a Product Group and a membership category (ICM admitted as a Special Clearing Member, ICM admitted as a Sponsored Member, ICM other than Special Clearing Member or Sponsored Member, GCM or Agent Member), provided that a Clearing Member (other than a Sponsored Member or Special Clearing Member) can also be admitted as an Agent Member.

Article 2.1.2.4

LCH SA may refuse an admission to membership, if it considers that such admission may adversely affect the operation of the clearing and settlement system, or where the Applicant does not comply with its obligations resulting from its admission to another clearing house or central securities depository or where the Applicant does not satisfy a minimum internal credit score which is determined by LCH SA as set out in Article 2.3.1.1 below.

LCH SA shall provide justification for its decision not to admit an Applicant to membership within one month following receipt of a request for justification from the relevant Applicant.

Article 2.1.2.5

If an Applicant has been approved as a Clearing Member and/or as an Agent Member, it shall before commencing operations (i) provide LCH SA with any outstanding documents and/or information as notified in the approval letter (ii) and comply with the specific requirements, as set-out in this Title II and in an Instruction.

Article 2.1.2.6

Upon approval and execution of the Admission Agreement the Clearing Member or Agent Member shall at all times comply with the provisions of the Clearing Rules.

In particular, the Clearing Member shall, *inter alia* :

- (i) pay any fees due by itself (provided that, if the Clearing Member has been admitted as a Sponsored Member, the Clearing Member shall be required to pay such fees to LCH SA only if its Agent Member has failed to pay such fees on its behalf to LCH SA);
- (ii) except if it is admitted by LCH SA as a Special Clearing Member make Contributions (or, if it is admitted by LCH SA as a Sponsored Member, be obliged and responsible to ensure that its Agent Member shall make Contributions) as set-out in Chapter 3 of Title IV;
- (iii) bear the risk of any instructions which are incorrect or provided late to LCH SA;
- (iv) comply with the continuing obligations described hereunder;

- (v) be liable for the accuracy of all information provided to LCH SA, especially information relating to the Clearing Member's Account Structure as described in Chapter 2 of Title III of the Clearing Rule Book.

The Agent Member (other than the Agent Member appointed to perform Back-up Agent Services and/or Back-up Paying Agent Services only) shall, inter alia:

- (i) pay any fees due by itself
- (ii) pay any fees due by its Sponsored Members on their behalf;
- (iii) make Contributions in connection with the Transactions attributed to this Agent Member(s), as set-out in Chapter 3 of Title IV;
- (iv) make the Buffer payments to LCH SA in a timely manner as set out in an Instruction;
- (v) bear the risk of any of the instructions issued by the Agent Member in the course of its activities and which are incorrect or provided late to LCH SA;
- (vi) comply with the continuing obligations described hereunder;
- (vii) be liable for the accuracy of all information provided to LCH SA.

The Agent Member appointed to perform Back-up Agent Services and/or Back-up Paying Agent Services only shall, inter alia:

- (i) bear the risk of any of the instructions issued by itself in the course of its activities and which are incorrect or provided late to LCH SA;
- (ii) comply with the continuing obligations described hereunder;
- (iii) be liable for the accuracy of all information provided to LCH SA.

Article 2.1.2.7

The Applicant shall confirm its acceptance of the Clearing Rules by returning the Admission Agreement executed by a duly authorised signatory.

The Admission Agreement is concluded on the basis of the identity of the relevant Clearing Member or Agent Member and cannot therefore be assigned or transferred without LCH SA's prior written approval.

Clearing Members and Agent Members shall not transfer or pledge their rights vis-à-vis LCH SA to third parties unless expressly provided otherwise in the Clearing Rules.

Article 2.1.2.8

A Clearing Member or Agent Member must commence operations within six months after LCH SA notifies its admission, unless LCH SA accepts an extension of such time limit. Failing this, the admission decision shall be automatically revoked and any new admission will require compliance with the provisions of Chapters 1 and 2 of Title II.

The six months time limit does not apply where a Clearing Member or Agent Member, which is already active with such status on one or several markets, applies to extend its activities with the same status to (an) other market(s) or Product Group(s).

Article 2.1.2.9

LCH SA may organise training sessions, on request of Clearing Members, dedicated to individuals that are under the Clearing Member's authority or acting on behalf of the Clearing Member who perform, or wish to perform, clearing functions on all Financial Instruments, as accepted by LCH SA pursuant to Article 1.3.1.6. Such training sessions may be organised as from the notification of membership admission decision and at any time thereafter, provided that Clearing Member's membership remains valid.

CHAPTER 2 - LEGAL OBLIGATIONS

Section 2.2.1 Regulatory Framework

A. Membership criteria applicable to Clearing Members other than Special Clearing Members and to Agent Members

Article 2.2.1.1

Any Applicant wishing to be admitted by LCH SA as a Clearing Member, other than a Special Clearing Member, should satisfy the following conditions:

- a) be duly organised and validly existing under the laws of the jurisdiction of its organisation or incorporation and, if relevant under such laws, in good standing;
- b) undertake to accept the Clearing Rules by executing the Admission Agreement;
- c) be supervised by its Competent Authorities, or other comparable supervision in its home jurisdiction;
- d) undertake to execute the agreement governing technical access to LCH SA's Clearing System;
- e) meet the financial requirements as determined by LCH SA from time to time and as specified in Chapter 3 of this Title and in addition meet any further requirements with respect to liquidity and/or solvency as may be set-out by LCH SA;
- f) meet the quality requirements as specified in an Instruction;
- g) satisfy LCH SA that it has sufficient expertise in relation to clearing activities, that its technical systems and related organisational structure are operationally reliable and that its risk management policy is adequate;
- h) ensure that the persons who represent the Applicant fulfil the requirements of expertise and capability as determined by LCH SA pursuant to Articles 2.2.2.5 to 2.2.2.7 with respect to any Applicant wishing to be admitted as a Clearing Member or otherwise as specified in an Instruction for any Applicant wishing to be admitted as an Agent Member, and ensure that the persons competent to take decisions will be accessible to LCH SA during working hours of every Clearing Day;
- i) submit accounts details for the purposes of cash payments and delivery of Financial Instruments, as well as evidence that a Power of Attorney has been issued in favour of LCH SA, in the case of Clearing Members to allow the debiting or crediting of such account(s) for the settlement of Open Positions registered by LCH SA, or in the case of Agent Members, to allow the debiting or crediting of such accounts in respect of the Contributions and Buffers that the Agent Member will be required to provide to LCH SA;
- j) irrevocably authorise such persons as may be specified by LCH SA pursuant to the conditions set out in Article 2.4.2.2 to inspect its facilities, interview its staff, audit its Systems and Operations, check the proposed procedures (as recorded in writing) and inspect its books, papers and other data, for the purpose of determining whether the Clearing Rules are being properly complied with;
- k) have at its disposal the technical environment to be connected to the relevant Clearing System managed by LCH SA depending on the market concerned either directly or indirectly through its Agent Member, where applicable;
- l) satisfy such other requirements as may be imposed by LCH SA generally or with respect to a category of Clearing Members, or Agent Members.
- m) with respect to any Applicant wishing to be admitted as a Sponsored Member by LCH SA, appoint and maintain at all times during its membership as a Sponsored Member at least one Agent Member to perform the Agent Member Services, and notify LCH SA of:

(i) the appointment of at least one Agent Member to perform Back-up Agent Services and Back-up Paying Agent Services or,

(ii) the confirmation that the Sponsored Member has elected to perform Back-up Agent Services and Back-up Paying Agent Services, all in accordance with Article 2.1.1.8 above; and

n) with respect to any Applicant wishing to be admitted as a Sponsored Member by LCH SA, have contingency payment arrangements in place to ensure that it can continue to meet its Margin obligations in the event of a failure by its Agent Member to meet the Payment Services obligations as set out in Section 2.2.6 below.

Article 2.2.1.2

Applicants that wish to be admitted as Clearing Members or Agent Members and are not established under the laws of the countries where market operators are established, or any other country that may be specified by LCH SA, are obliged to provide LCH SA, as soon as possible, with all relevant information on rules and regulations that are in force in their Home State, which deal with clearing activities, and especially those rules and regulations that concern the registration of Transactions and the resolution of delivery fails between Clearing Members and their Clients, where applicable.

B. Membership criteria applicable to Special Clearing Members

Article 2.2.1.3

Any Applicant wishing to be admitted as a Special Clearing Member by LCH SA should satisfy the following conditions:

- a) all conditions set out under Article 2.2.1.1 of the Clearing Rule Book except conditions provided in c), e) and h);
- b) having a status of an international financial organisation or body, designated in a decree of the Minister of Economy on an individual basis or by category, as set out in Article L.440-2 paragraph 6 of the French Monetary and Financial code.

Should LCH SA become aware of any event that could adversely impact the ability of the Special Clearing Member to satisfy this condition, LCH SA will send a notification to the Special Clearing Member, to the extent permitted by applicable laws and regulations, as early as possible before the effective date of such event;

- c) benefit at all times from the zero risk-weighted exposure in accordance with the CRR, as amended from time to time;
- d) benefit at all times from the highest internal credit score as determined by LCH SA in accordance with Article 2.3.1.1 of the Clearing Rule Book.

Should LCH SA consider a potential modification of the internal credit score of the Special Clearing Member, LCH SA will send a notification to this Special Clearing Member at least thirty calendar days before such decision is made.

Article 2.2.1.4

Any Applicant wishing to be admitted as a Special Clearing Member shall provide LCH SA with a copy of rules and regulations (including constitutional documents) governing such Applicant relevant for the purposes of LCH SA deciding on the admission of the Applicant as a Special Clearing Member.

Article 2.2.1.5

A Special Clearing Member willing to apply as an Individual Clearing Member other than a Special Clearing Member, on the basis of Article 2.5.4.6 of the Clearing Rule Book, must meet all the conditions set out under Article 2.2.1.1 of the Clearing Rule Book except in (c) of Article 2.2.1.1.

Section 2.2.2 Corporate Organisation

A. Location of Offices and sub-contracting

Article 2.2.2.1

Subject to the exceptions set out in the second paragraph of article 2.4.2.2 below, a Clearing Member or Agent Member may locate the necessary human and technical resources required to carry on its clearing and back office activities, or its activities as an Agent Member, wherever it chooses, provided that it can satisfy LCH SA that such activities are carried out in a country in which on-site inspections by, or on behalf of LCH SA, are practicable and permitted by applicable laws and regulations. In any case, the head office and the registered office of the Clearing Member or of the Agent Member must be located in the same State as provided in Directive 95/26/EC which applies to all financial undertakings.

Article 2.2.2.2

A Clearing Member may subcontract all or part of its clearing activities to another Clearing Member or to a company in the same group with the prior authorisation of LCH SA, provided that such arrangements shall not relieve the subcontracting Clearing Member of any of its obligations under these Clearing Rules. The request for authorisation must give all appropriate details as to the organisation, structure and procedures of the subcontractor and as to the means of control and supervision available to the subcontracting Clearing Member.

Article 2.2.2.3

Subject to the exceptions set out in the second paragraph of article 2.4.2.2 below, LCH SA may require from a subcontractor the same information as may be required from a Clearing Member pursuant to the Clearing Rules. To that effect, LCH SA may require in advance a written undertaking by the subcontractor, which will include a provision authorising LCH SA and any Person acting on its behalf to perform inspections at the premises in which the clearing activities actually take place.

Article 2.2.2.4

A Clearing Member that relies on an outside contractor to operate its information systems hereby undertakes to inform LCH SA of the control mechanisms pertaining to the hardware and software used or made available by the contractor. Such communications do not constitute approval by LCH SA; nor do they relieve the Clearing Member of any of its obligations under these Clearing Rules. The Clearing Member alone is answerable to LCH SA for the proper execution of its operations.

B. Authorised Clearing Operators

Article 2.2.2.5

Individuals that are under the Clearing Member's authority or acting on behalf of the Clearing Member who perform, or who wish to perform, clearing functions on Financial Instruments traded on Regulated Markets (with the exception of MTS Italy) or MTFs shall have the Authorised Clearing Operator status provided by the relevant Clearing Member, under the terms and subject to the conditions specified in an Instruction.

Article 2.2.2.6

Before granting the authorisation, the Clearing Member may assess the applicant's professional knowledge and ability, if necessary by means of an examination.

Article 2.2.2.7

A Clearing Member cannot disclaim responsibility for the acts or omissions of any person acting on its behalf on the basis that such person was not duly authorised.

Section 2.2.3 Third Party Contractual Obligations

A. Relationship with Settlement Agents and Payment Agents

A.1. Common Provisions

Article 2.2.3.1

A Clearing Member that wishes to use a Settlement Agent and/or a Payment Agent must guarantee that the agreement(s) by which the Settlement Agent and/or the Payment Agent agrees to deliver Securities or to pay cash amounts, as the case may be, to LCH SA on behalf of the Clearing Member complies with the LCH SA-requirements.

The provisions which are required to be included in such agreement(s) are outlined in a declaration of compliance, the template of which is provided by LCH SA upon request of the Clearing Member. Such declaration of compliance must be duly completed and signed by the Clearing Member (and, if applicable, the relevant Settlement Agent and/or Payment Agent) and returned to LCH SA.

Any amendment made to the agreement entered into between the Clearing Member and a Settlement Agent or a Payment Agent shall be in accordance with the principles set-out in the declaration of compliance.

Notwithstanding the above, such an agreement(s) shall not relieve the Clearing Member from its obligations under the Clearing Rules.

Article 2.2.3.2

With respect to execution of the obligations set-out in Articles 2.2.3.3 and 2.2.3.5, LCH SA must be provided with the relevant Powers of Attorney enabling it to debit directly the account(s) of the Clearing Member or the Settlement Agent as referred to in Article 2.2.3.6, or of the Payment Agent as referred to in Article 2.2.3.4, to meet the Clearing Member's payment or delivery obligations vis-à-vis LCH SA.

Where Powers of Attorney are not accepted under the rules of the relevant central banks and/or commercial banks mentioned in Article 2.2.3.3, the Clearing Member shall be obliged to credit directly, on a daily basis, the account(s) of LCH SA in the conditions set out in an Instruction. Failure to comply with this obligation will be considered as a breach of the Clearing Rules, and LCH SA may then take any appropriate remedy measures in accordance with Articles 2.5.1.1, 2.5.1.2 and 2.5.1.3.

A.2. Provisions Related to Payment Agents

Article 2.2.3.3

Clearing Members must ensure that they are able to:

- (i) comply with cash payments obligations;
- (ii) and, if relevant, provide Collateral in cash.

To that end, each Clearing Member shall have entered into appropriate arrangements with the relevant central banks and/or commercial banks as the case may be, as described in an Instruction.

Article 2.2.3.4

When the obligations set-out in Article 2.2.3.3 regarding the obligations to comply with cash payments are performed indirectly through a Payment Agent, the Clearing Member shall have entered into an appropriate agreement with the Payment Agent.

A.3. Provisions Related to Settlement Agents

Article 2.2.3.5

Clearing Members must ensure that they are able to:

- (i) perform the settlement of all their Transactions irrespective of the currency in which they are settled, as described in an Instruction;
- (ii) and, if relevant, provide Securities as Collateral.

To that end, each Clearing Member shall have entered into appropriate arrangements with the relevant CSD of Reference or securities settlement system, as described in an Instruction.

Article 2.2.3.6

When the obligations set-out in Article 2.2.3.5 regarding the settlement and the provision of Securities as Collateral are performed indirectly through a Settlement Agent, the Clearing Member shall sign an agreement with the Settlement Agent.

Article 2.2.3.7

A Clearing Member may use the services of one or several Settlement Agent(s) per Securities settlement system or per central Securities depository and of one or several Payment Agent(s) per central bank or Credit Institution.

Article 2.2.3.8

The Clearing Member shall require the Settlement Agent to open on behalf of the latter (an) account(s) to be used for the settlement of the Clearing Member's Transactions, in the applicable Securities settlement system or central Securities depository, in compliance with applicable segregation regulations.

B. Relationship with Clients**Article 2.2.3.9**

A Clearing Member that wishes to clear Transactions for one or more Client(s) must have entered into a Clearing Agreement containing the Mandatory Client Clearing Provisions with each of such Client(s).

LCH SA shall not be liable for any damages arising from any Clearing Agreement, whether sustained by the Clearing Member or by a third party. The Clearing Member shall comply with the Clearing Agreement.

Any amendment made to the Clearing Agreement shall be in accordance with the principles set out in an Instruction.

The Clearing Member must ensure that it complies in all relevant jurisdictions with all applicable legislations and regulations requiring client assessment and/or sanctions screening, and upon request from LCH SA, will be required to evidence the same.

C. « del credere » Agents**Article 2.2.3.10**

Clearing Members act as *del credere* agents for the Clients-whose accounts they administer when the Transactions are executed on any French Regulated Market. They guarantee to their Clients that all such Transactions will be settled.

Article 2.2.3.11

Clearing Members guarantee their Clients the fulfillment of all obligations arising from their Transactions on Euronext Lisbon Derivatives Market, both for their own account and/or on behalf of third parties.

C.1 Authority to-cancel settlement instructions**Article 2.2.3.12**

Each Clearing Member active in Transactions carried out on Trading & Matching Platforms and MTS Italy or wishing to become active in such Transactions grants LCH SA the irrevocable authority (but not the obligation) to cancel settlement instructions concerning Transactions and associated Trade Legs and Open Positions of such Clearing Member carried out on Trading & Matching Platforms and MTS Italy which have not yet settled and to instruct any CSD of Reference or ICSD and securities settlement system, directly or indirectly, to cancel any such pending instructions and to stop issuing any new instructions, following an Event of Default of an Allied Clearing House or service closure initiated by LCH SA or an Allied Clearing

House. LCH SA may request each such Clearing Member to confirm such irrevocable authority in writing at any time.

LCH SA shall have no liability to any Clearing Member or Agent Member for any actions taken by LCH SA in connection with the above mentioned authority.

Section 2.2.4 Record Keeping

Article 2.2.4.1

Clearing Members must keep accurate and complete accounting records of all Transactions they have entered into for the account of the (Associated) Trading Member or the Clients. Such accounting records should, where applicable, disclose at least the following particulars:

- (i) the (Associated) Trading Member on the relevant market with which a Clearing Agreement has been entered into;
- (ii) in respect of each (Associated) Trading Member on the relevant market with which a Clearing Agreement has been entered into, all rights and obligations arising from the Transactions entered into by a General Clearing Member for the account of the (Associated) Trading Member concerned; and
- (iii) any further requirements as may be specified by LCH SA.

Article 2.2.4.2

The Clearing Member is required to keep all data relating to its clearing activity with LCH SA, pursuant to the Clearing Rules, for at least five years and must make the data available to LCH SA upon request throughout that period.

Article 2.2.4.3

The Agent Member is required to keep all data relating to its activity as an Agent Member for at least five years and must make the data available to LCH SA upon request throughout that period.

Section 2.2.5 Test Processing

Article 2.2.5.1

Clearing Members and Agent Members must comply with LCH SA's request for technical and operational tests. Such tests may be required either prior to the implementation of a project or prior to the execution of specific and individual operations.

Section 2.2.6 Relationship between Sponsored Members and Agent Members

Article 2.2.6.1

LCH SA shall not be liable for any damages arising from the relationship between a Sponsored Member and an Agent Member, whether sustained by the Sponsored Member, the Agent Member or by a third party.

Article 2.2.6.2

Each Sponsored Member, in order to discharge the financial obligations that arise out of its participation as a Clearing Member of LCH SA, shall nominate an Agent Member who shall perform those obligations set out in the Clearing Rules, as applicable (the "**Agent Member Services**"), including but not limited to the following:

- (i) provide payment services by facilitating the payment of Sponsored Members' Margin by satisfying any calls for Margin made by LCH SA to each of such Agent Member's Sponsored Members in connection with the Open Positions registered in the name of corresponding Sponsored

Member(s) with LCH SA and attributed to such Agent Member as Payment Agent and Settlement Agent as the case may be (the "**Payment Services**"); and

- (ii) provide Contributions to LCH SA in connection with the Open Positions registered in the name of its Sponsored Member(s) with LCH SA and attributed to such Agent Member.

Each Agent Member must provide Agent Buffer and Agent Resource Contributions to LCH SA.

Article 2.2.6.3

Where there has been an Agent Close-out Event, the Non-Affected Agent Member that has elected to perform the Back-up Agent Services (for a corresponding Sponsored Member of such Affected Agent Member), shall perform those obligations set out in the Clearing Rules, as applicable (the "**Back-up Agent Services**"), including but not limited to, providing any Margin called by LCH SA in respect of a shortfall in relation to the Affected Portfolios, provided that such Back-up Agent Services shall only be required to be performed where the relevant Non-Affected Agent Member has notified LCH SA within the Affected Portfolio Acceptance Window that it agrees to perform Back-up Agent Services, in accordance with Chapter 6 of Title IV and the provisions of an Instruction.

Article 2.2.6.4

Where there has been a Paying Agent Resignation, the Back-up Paying Agent that has elected to perform the Back-up Paying Agent Services (for an Affected (Payment Services) Sponsored Member), shall perform those obligations set out in the Clearing Rules, as applicable (the "**Back-up Paying Agent Services**"), including but not limited to, providing any Margin called by LCH SA in respect of a shortfall in relation to the Affected (Paying Agent Resignation) Portfolios, provided that such Back-up Paying Agent Services shall only be required to be performed where both the Affected (Payment Services) Sponsored Member and the Back-up Paying Agent have notified LCH SA in accordance with an Instruction.

Article 2.2.6.5

For the avoidance of doubt, each Agent Member will act as a Payment Agent and Settlement Agent, as applicable, which its Sponsored Members shall use to fulfil all of their cash Margin obligations towards LCH SA in cash (a Sponsored Member may elect to fulfil its Margin obligations by posting Securities Collateral directly to LCH SA, without the intermediation of its Agent Member), save with respect to any Sponsored Member which (i) has elected to perform the Back-up Agent Services itself on the occurrence of an Agent Close-out Event in respect of its Agent Member that is performing the Agent Member Services, and (ii) where applicable, has elected to perform the Back-up Paying Agent Services on the occurrence of a Paying Agent Resignation in respect of its Agent Member that is performing the Payment Services.

CHAPTER 3 - CAPITAL AND OTHER FINANCIAL REQUIREMENTS

Section 2.3.1 Common General Provisions

Article 2.3.1.1

The Clearing Member and the Agent Member must, at all times, satisfy the credit risk assessment minimum requirements. LCH SA assesses the credit risk of the Clearing Member or of the Agent Member in accordance with its internal credit score based on a range of quantitative and qualitative data. These include financial analysis, external market data as well as consideration of any implicit or explicit support available to the Clearing Member (or to the Agent Member, as the case may be), and operational capability, and for Sponsored Members, specific financial criteria to be set out in a Notice. The analysis is performed on the basis of a predetermined methodology applicable to any Clearing Member of the same category, or to any Agent Member, as the case may be.

Article 2.3.1.2

Any Letters of Credit that have been issued by a Clearing Member or an Agent Member in favour of LCH SA to cover the obligations of another Clearing Member, pursuant to Articles 2.3.2.3, 2.3.2.5, 2.3.3.1 and 2.3.3.2 shall reduce the issuer's Capital pro tanto.

Article 2.3.1.3

In the case of Business Combinations, the minimum Capital shall be determined by aggregating the Capital of each Person in such combination which is jointly and severally liable, and subtracting any cross-shareholdings between such Persons. The total Capital must at all times be at least equivalent to the minimum amounts set forth in these Clearing Rules.

Article 2.3.1.4

A Clearing Member or an Agent Member whose Capital at any point falls below the required amount is obliged to immediately ensure it is brought back up to the minimum requirement, without prejudice to the powers of LCH SA specified in Chapter 5 of this Title.

Article 2.3.1.5

LCH SA shall, on a daily basis, compare the market risk associated with each Clearing Member's level of business with their level of Capital as reported to LCH SA in order to ascertain whether, in LCH SA's opinion, such Clearing Member is sufficiently capitalised to support the level of risk associated with such Clearing Member. In determining whether a Clearing Member is sufficiently capitalised, LCH SA may also consider:

- (i) the Clearing Member's aggregate exposure to other clearing houses and other entities; and/or
- (ii) the total amount of Collateral deposited with, transferred to or otherwise delivered to LCH SA by the Clearing Member.

In respect of a Sponsored Member, LCH SA shall assess the market risk relating to such Sponsored Member, taking into account the aggregate exposure of the Sponsored Member relating to its Transactions attributed to all the Agent Members used by such Sponsored Member.

In the event that LCH SA considers that a Clearing Member, other than a Special Clearing Member, is not sufficiently capitalised to support the level of risk associated with its Open Position, LCH SA may take any measures it considers necessary to contain its exposure, including, inter alia, a request for additional Margin, reduction in exposures, and/or increase in net capital.

Article 2.3.1.6

Articles 2.3.1.2 to 2.3.1.5 of the Clearing Rule Book shall not apply to Special Clearing Members.

Article 2.3.1.7

The Agent Member shall perform credit due diligence on its Sponsored Member(s) on a regular basis, and, without prejudice to Section 2.4.1 below, provide LCH SA with (i) information on any credit or operational deterioration affecting its Sponsored Member(s) and (ii) regular credit due diligence information on its Sponsored Member(s) as requested by LCH SA.

Section 2.3.2 Provisions Related to Securities and Derivatives Product Groups

Article 2.3.2.1

LCH SA may apply the provisions of this Section to the Clearing Members clearing Transactions in Financial Instruments executed on a market which has neither the status of Regulated Market nor MTF, if all Financial Instruments that may be traded on such market are traded elsewhere on a Regulated Market.

Article 2.3.2.2

An Individual Clearing Member must at all times maintain Capital of at least EUR 10 million.

If the Clearing Member is not able to fulfil this requirement, a Letter of Credit may be accepted subject to the conditions set forth below to cover the shortfall.

Article 2.3.2.3

An Individual Clearing Member with Capital between EUR 5 and EUR 10 million must provide a Letter of Credit in favour of LCH SA to cover the shortfall.

In such case, the identity of the issuer must be satisfactory to LCH SA.

Article 2.3.2.4

A General Clearing Member must at all times maintain Capital of at least EUR 25 million. The required Capital depends on the number of Trading Members/Market Members cleared by the General Clearing Member, and is determined as follows:

- EUR 30 million from the tenth Trading Member/ Market Members cleared;
- EUR 33.75 million from the fifteenth Trading Member/ Market Members cleared;
- EUR 37.5 million from the twentieth Trading Member/ Market Members cleared and above.

If the Clearing Member is not able to fulfil such requirement, a Letter of Credit may be accepted subject to the conditions set forth below, to cover the shortfall.

Article 2.3.2.5

A General Clearing Member with Capital below the amounts stipulated in Article 2.3.2.4, but in excess of EUR 15 million, must provide a Letter of Credit in favour of LCH SA to cover the shortfall.

In such case, the identity of the issuer must be satisfactory to LCH SA.

Article 2.3.2.6

If LCH SA considers a Regulated Market as insufficiently liquid, it may by a Notice apply the provisions of Section 2.3.3 to the clearing of Transactions executed on that market.

Section 2.3.3 Provisions Related to Trading & Matching Platforms and MTS Italy

Article 2.3.3.1

An Individual Clearing Member (other than a Sponsored Member established as an investment fund, a pension fund or an insurance company) wishing to clear Transactions traded or matched via a Trading & Matching Platform and/or via MTS Italy must, unless otherwise permitted by the provisions of this Section, at all times maintain a capital of at least EUR 100 million.

If the Clearing Member is not able to fulfil the financial requirement, a Letter of Credit may be accepted up to a maximum of 50% of the minimum requirement subject to the condition set forth below to cover the shortfall.

Article 2.3.3.2

A General Clearing Member wishing to clear Transactions traded or matched via a Trading & Matching Platform and/or via MTS Italy must at all times maintain Capital of at least EUR 400 million.

If the Clearing Member is not able to fulfil such financial requirement, a Letter of Credit may be accepted up to a maximum of 50% of the minimum requirement subject to the condition set forth below to cover the shortfall.

Article 2.3.3.3

An Agent Member must at all times maintain group consolidated Capital of at least USD 10 billion (or the equivalent in other currencies).

Article 2.3.3.4

LCH SA may, but is not obliged to, adjust any of the requirements specified in Articles 2.3.3.1 to 2.3.3.3 to take into account a Clearing Member's or Agent Member's consolidated financial situation, the quality of its shareholders, members or associates, the quality of its Agent Members or Sponsored Members (if any) and its legal structure.

Article 2.3.3.5

If a Letter of Credit has to be issued pursuant to Articles 2.3.3.1 and 2.3.3.2, the identity of the issuer must be satisfactory to LCH SA.

Any Letters of Credit that have been issued by a Clearing Member or Agent Member in favour of LCH SA to cover the obligations of another Clearing Member, pursuant to Articles 2.3.3.1 and 2.3.3.2, shall reduce the issuer's Capital pro-tanto.

CHAPTER 4- INFORMATION OBLIGATIONS AND AUDIT

Section 2.4.1 Information

Article 2.4.1.1

The obligation of Clearing Members or Agent Members to provide information also covers information about their Clients (including, where relevant, physical persons), or Sponsored Members respectively concerning the identity, trading activities and Positions of Clients or Sponsored Members respectively. LCH SA shall have the right to furnish this information to the same persons as mentioned in Article 1.3.4.1 and on the same terms. LCH SA may give further details as to the application of these provisions in an Instruction.

A. Information upon Request

Article 2.4.1.2

The Clearing Member shall respond, within a reasonable period of time, to all requests for information from LCH SA concerning its clearing activities, with LCH SA exposure to general and financial risks in the context of its clearing activities with LCH SA, or any requests made under the terms and conditions set out in an Instruction.

The Agent Member shall respond to all requests for information from LCH SA concerning its activities as an Agent Member and exposure to general and financial risks (Transactions of its Sponsored Member(s), Sponsored Members, etc.) under the terms and conditions set out in an Instruction.

B. Mandatory Information

Article 2.4.1.3

Clearing Members and Agent Members must send the following information to LCH SA:

(i) Annually:

- audited financial statements – balance sheet, profit and loss accounts, and notes to the annual financial statements;
- audited consolidated financial statements – balance sheet, profit and loss accounts, and notes to the financial statements;
- in addition, LCH SA may at its discretion require the provision of the audited financial statements for any company belonging to the same Financial Group as the Clearing Member or the Agent Member, as the case may be; and

(ii) Where required by the Clearing Member's Competent Authority or the regulations of its Home State, and at the relevant intervals set by such Competent Authority or regulations or at other less frequent intervals accepted by LCH SA:

- interim balance sheet;
- interim profit and loss account;
- documents concerning prudential supervision of market risks, prepared on a consolidated or unconsolidated basis; and
- statements concerning core capital (tier 1) and supplementary capital (tier 2) as defined by the said authority or regulations.

provided that Clearing Members admitted as Sponsored Members shall provide such information to LCH SA either directly or through their Agent Member, and upon the request of LCH SA.

Article 2.4.1.4

The Clearing Members and Agent Members must ensure that they comply with the standards and principles of applicable laws, rules and regulations in relation to the prevention and detection of money-laundering, combating the financing of terrorism, and international sanctions in all relevant jurisdictions and upon request from LCH SA, will be required to evidence the same.

Article 2.4.1.5

A Clearing Member or an Agent Member must notify LCH SA in advance in writing of every change in the data supplied in its application for admission and of any facts and circumstances concerning the Clearing Member or the Agent Member, respectively, which may significantly affect the exercise of its duties or the orderly conduct of its activities as a Clearing Member or as an Agent Member. With respect to Clearing Members, other than Special Clearing Members, and to Agent Members, such developments include in particular, without limitation:

- (i) developments which could, or are likely to, result in the Clearing Member or the Agent Member no longer being able to comply with its obligations under the Clearing Rules ;
- (ii) any significant change in its financial situation, in particular where shareholders' equity or Letters of Credit have declined by more than 10% compared with the amounts previously reported or if shareholders' equity and Letters of Credit fall below the amount specified in Chapter 3 of Title II of this Clearing Rule Book;
- (iii) any other change which has, or could have, a significant impact on its financial position, reliability or operations ;
- (iv) any change in its legal status or structure, including change of address, office or object under its Articles of Association ;
- (v) changes in the power of control (shareholders) over its business with respect to the appointment and dismissal of its personnel, changes in the composition of its management or executive bodies, in its accounting system or organisation, in the holders of a qualified participating interest in its business, in the participating interests it holds or the joint ventures or alliances it has entered into ; and/or
- (vi) any event occurring between the reporting dates set out in Article 2.4.1.3 that would significantly reduce the Clearing Member's or the Agent Member's Capital.

With respect to Special Clearing Members, such developments include developments which could, or are likely to, result in the Special Clearing Member no longer being able to comply with its obligations under the Clearing Rules, and in particular, any of the conditions specified in Article 2.2.1.3.

The obligation to notify becomes effective at the time the Clearing Member or the Agent Member, as the case may be, anticipates or becomes aware of the events, or, if earlier, at the time at which the Clearing Member or the Agent Member respectively ought reasonably to have anticipated or become so aware.

Article 2.4.1.6

Clearing Members and Agent Members shall send LCH SA a copy of all injunctions, formal notifications or sanctions imposed on them by any Competent Authority in respect of any event that could be relevant for LCH SA.

Article 2.4.1.7

Clearing Members and Agent Members must inform LCH SA immediately of any instances of default they detect among their Clients and/or Indirect Clients, their Agent Members or their Sponsored Members, respectively.

Article 2.4.1.8

Special Clearing Members must notify LCH SA, at least annually and at the latest on the 30th November of the previous year, of the list of business days specific to such Special Clearing Member for the following year, i.e. the business days on which the Special Clearing Member is open for business at its head office.

Section 2.4.2 Audit and Inspection

Article 2.4.2.1

The Clearing Member and the Agent Member authorise LCH SA to request all relevant information regarding its payment-delivery commitments in their payment and settlement systems used by LCH SA, either directly or through another organisation.

Article 2.4.2.2

The Clearing Member and the Agent Member agree to submit respectively their clearing activity or activity as an Agent Member to inspections by LCH SA, whether on the latter's initiative or at the request of a national Competent Authority, and to respond to all requests by LCH SA for information on a regular or exceptional basis.

The Clearing Member or the Agent Member, as the case may be, will only decline to submit its clearing activity to inspections and/or to provide the required information where it is prevented from doing so by an applicable provision of law or regulation.

Article 2.4.2.3

Subject to the exception set out in Article 2.4.2.2, the Clearing Member and the Agent Member authorise LCH SA, or any person or entity that has been duly designated, to carry-out an audit of their Systems and Operations. Further, they undertake to provide all information needed to complete such an audit. LCH SA reserves the right, upon completion of the audit, to require any changes that may prove necessary. The Clearing Member and the Agent Member hereby agree to implement such modifications as soon as possible.

Article 2.4.2.4

For the purpose of this Clearing Rule Book, LCH SA may delegate its investigation powers to any appropriate and professional body which it considers fit.

Where there is any such delegation, LCH SA will ensure the confidentiality of any information provided by the Clearing Member or the Agent Member.

The Clearing Member and the Agent Member shall have the possibility to deny the attendance of certain LCH SA representatives, experts or other persons, if the Clearing Member or the Agent Member, as the case may be, is able to prove that they are affected by conflicts of interest.

Article 2.4.2.5

The Clearing Member and the Agent Member shall be available during clearing hours.

CHAPTER 5- SUSPENSION AND TERMINATION OF MEMBERSHIP

Section 2.5.1 Common and General Provisions

Article 2.5.1.1

Without prejudice to the possible applicability of the provisions set out in Chapters 5 and 6 of Title IV, if LCH SA is of the opinion that some events could, or are likely to, result in a situation in which a Clearing Member or an Agent Member is no longer able to satisfy one or more of the requirements set out in Chapters 2 and 3 of Title II or endangers the proper functioning of the Clearing System, or can no longer comply with its obligations under the Clearing Rules, LCH SA may:

- (i) suspend its membership;
- (ii) terminate the Clearing Member's membership as stated in the Admission Agreement;
- (iii) terminate the Agent Member's membership as stated in the Clearing Rules or in the Agent Member Admission Agreement;
- (iv) refuse to register Transactions (including Transactions to be registered in the name of any Sponsored Member of the relevant Agent Member); and/or
- (v) subject registration of Transactions (including Transactions to be registered in the name of any Sponsored Member of the relevant Agent Member) to specific conditions, or impose additional conditions which LCH SA deems appropriate in the circumstances and notifies in writing to the Clearing Member and/or Agent Member, as the case may be.

Article 2.5.1.2

Before exercising any such power, however, LCH SA may, enter into consultations with the Clearing Member or Agent Member, as the case may be, which may result in LCH SA specifying the latest date and time limit within which the Clearing Member or Agent Member, as the case may be, must have remedied the situation.

Article 2.5.1.3

In the event a Clearing Member or an Agent Member breaches or no longer complies with any of the requirements set out in this Title II, LCH SA shall consult with the relevant Competent Authority to determine whether such breach shall be publicly disclosed in accordance with EMIR, in which case the suspension or revocation of such membership shall be promptly notified to: (i) the Clearing Members and the Agent Members by means of publication in a Notice ; and (ii) the relevant Market Undertaking(s).

Section 2.5.2 Suspension

Article 2.5.2.1

In any event and at any time, LCH SA may decide to temporarily suspend a Clearing Member's or Agent Member's activities subject to the conditions set out in the Admission Agreement. The Clearing Member or Agent Member shall inform its Clients or Sponsored Members accordingly.

Such Clearing Member or Agent Member is informed in writing of the reasons for suspension.

Article 2.5.2.2

When a Clearing Member's membership is suspended, LCH SA shall suspend the registration of any new Transactions in the Clearing Member's name. However, LCH SA may decide, in view of the particular circumstances to only suspend the registration of a new Transaction increasing the Clearing Member's Open Position. The Clearing Member will continue to be required to provide Collateral and settle Open Positions as they fall due.

Article 2.5.2.3

When an Agent Member's membership is suspended, LCH SA will not accept any new Transactions of any Sponsored Member of such Agent Member for registration, other than Transactions which, LCH SA, in its sole discretion, considers would facilitate the reduction of the relevant Sponsored Member's risk with LCH SA. The Agent Member will continue to be required to provide Collateral, in connection with the outstanding Transactions which have been previously registered in the name of any Sponsored

Members of such Agent Member, until the date on which all such Transactions have matured and are being duly settled, closed or have been unwound, reversed or otherwise terminated pursuant to the Clearing Rules and without prejudice to the possible applicability of the provisions set out in Chapters 5 and 6 of Title IV.

Section 2.5.3 Termination for Clearing Members

Article 2.5.3.1

A Clearing Member shall have the right at all times to terminate its membership as a Clearing Member, as specified in the Admission Agreement.

Article 2.5.3.2

In any event and at any time, LCH SA may decide to terminate a Clearing Member's membership subject to the conditions set out in the Admission Agreement. The Clearing Member shall inform its Clients accordingly.

Such Clearing Member is informed in writing of the reasons for termination.

The termination is subject to a period of notice set out in the Admission Agreement.

Article 2.5.3.3

When a Clearing Member's membership is terminated, LCH SA shall discontinue registration of any new Transactions in the Clearing Member's name and transfer to another Clearing Member and/or liquidate the Clearing Member's Open Position(s).

Article 2.5.3.4

Provisions of Sections 2.5.1 to 2.5.3, save for Articles 2.5.3.1, 2.5.3.2 and this Article 2.5.3.4, do not apply to the Special Clearing Members who are subject to the provisions below.

Section 2.5.4 Provisions applicable to a Special Clearing Member

A. Special Clearing Member Events

Article 2.5.4.1

The occurrence of any of the following events constitutes a Special Clearing Member Event and may result in LCH SA taking the relevant actions set out in section B below:

- (i) the Special Clearing Member fails to comply with any material provision applicable to Special Clearing Members under the Clearing Rules;
- (ii) the Special Clearing Member fails to comply with any of the conditions set out under Article 2.2.1.3 of the Clearing Rule Book ;
- (iii) the Special Clearing Member fails to pay any Variation Margin;
- (iv) following the receipt of a notice from LCH SA of the occurrence of a Net Fail on cash, the Special Clearing Member fails to provide a Loan in accordance with the terms set out in an Instruction;
- (v) notwithstanding point (iv) above, the Special Clearing Member is notified of the occurrence of a Net Fail on cash by LCH SA.;
- (vi) the Special Clearing Member's relevant Open Positions exceed any Borrowing Threshold that applies to that particular Special Clearing Member in accordance with the provisions set out in Article 4.1.0.8 of the Clearing Rule Book and such breach has not been remedied within the timeframe (grace periods) set out in Article 2.5.4.4 below.

Article 2.5.4.2

LCH SA will notify the relevant Special Clearing Member of the occurrence of a Special Clearing Member Event(s) and, as the case may be, will indicate the applicable grace period. All notifications provided to Special Clearing Members pursuant to this Rulebook shall be valid if sent by e-mail to an address indicated by the Special Clearing Member. With respect to Articles 2.5.4.1 (ii), (iii), (iv) and (v), as well as Article 2.5.4.7, notification also requires in addition a telephone communication to an authorized individual indicated by the Special Clearing Member.

B. Consequences of occurrence of a Special Clearing Member Event

Article 2.5.4.3

Upon the occurrence of a Special Clearing Member Event mentioned in Article 2.5.4.1 (i) or 2.5.4.1 (ii), LCH SA and the relevant Special Clearing Member will consult with each other in an attempt to remedy the relevant breach.

Furthermore, upon the occurrence of a Special Clearing Member Event mentioned in Article 2.5.4.1 (i) and Article 2.5.4.1 (ii) (in relation to Article 2.2.1.3(a)), the Special Clearing Member will benefit from thirty calendar days (grace period) (if the last day is not a Clearing Day, such grace period will end on the Clearing Day immediately following the last day of that grace period) from the date of notification of the occurrence of such Special Clearing Member Event to remedy the breach. If following the expiration of such remediation period, the Special Clearing Member Event is continuing, the provisions of Article 2.5.4.5 shall apply.

Upon the occurrence of a Special Clearing Member Event mentioned in Article 2.5.4.1(iii), (iv) or (v) caused by an operational issue, the Special Clearing Member will benefit from a minimum of one Clearing Day (grace period) (if such Clearing Day is not a Special Clearing Member Business Day, such grace period will end on the next Clearing Day that is also a Special Clearing Member Business Day) from the date of notification of the occurrence of such Special Clearing Member Event, in order to remedy the issue. If following the expiration of such remediation period (during which time the Special Clearing Member and LCH SA will consult with each other as to the operational issue), the Special Clearing Member Event is continuing, the provisions of Article 2.5.4.5 shall apply.

Article 2.5.4.4

Notwithstanding anything to the contrary in the Clearing Rule Book, if the Special Clearing Member's relevant Open Positions exceed any Borrowing Threshold applicable to it, the Special Clearing Member will have seven (7) Clearing Days (grace period) from the date of notification that the relevant Borrowing Threshold was exceeded, followed by thirty (30) calendar days (grace period), (if the last day is not a Clearing Day, such grace period will end on the Clearing Day immediately following the last day of that grace period) to take any action necessary so that its relevant Open Positions fall below such thresholds.

a. Seven (7) Clearing Day grace period:

During the first seven Clearing Days from the date of notification that the relevant Borrowing Threshold is exceeded, LCH SA will accept to register new Transactions of the Special Clearing Member provided that each new Transaction meets the following conditions:

- (i) the Transactions increasing the Net Cash Borrower Position of the Special Clearing Member must be for a maximum term of seven (7) Clearing Days and must exclusively relate to debt meeting minimum credit rating and liquidity criteria set out in the Admission Agreement;
- (ii) the Transactions related to any type of debt other than the ones mentioned in paragraph above shall reduce the Net Cash Borrower Position of the Special Clearing Member.

b. Thirty (30) calendar day grace period:

If the Special Clearing Member's relevant Open Positions do not fall below the relevant Borrowing Threshold within the grace period described in (a) above, LCH SA shall notify the Special Clearing Member that it has thirty (30) additional calendar days to remedy to the situation (if the last day is not a Clearing Day, such period will end on the following Clearing Day).

During the thirty (30) calendar days following such notification, as long as the Special Clearing Member's relevant Open Positions do not fall below the relevant Borrowing Threshold:

- (i) The Special Clearing Member may only enter into new Transactions which would increase its exposure towards LCH SA if the exposure of that Special Clearing Member towards LCH SA does not exceed the amount mentioned in the Admission Agreement executed by that Special Clearing Member; and;
- (ii) the Special Clearing Member can enter into new Transactions which reduce its exposure towards LCH SA.

Upon the expiration of the consecutive seven (7) Clearing Day and thirty (30) calendar day periods described in this Article, if the Special Clearing Member's relevant Open Positions continue to exceed the relevant Borrowing Threshold, LCH SA reserves its right to terminate the membership of that Special Clearing Member, in accordance with the conditions set out in Article 2.5.4.5 *et seq.* below.

Article 2.5.4.5

Upon the occurrence of any Special Clearing Member Event, and following any applicable grace period, LCH SA may decide in its own discretion to terminate the membership of that Special Clearing Member by notice (the "**Termination Notice**") given to the Special Clearing Member in accordance with the notification procedure described in Article 2.5.4.2.

Article 2.5.4.6

If LCH SA sends a Termination Notice to the Special Clearing Member, the Special Clearing Member will have thirty (30) calendar days from the receipt of the Termination Notice (the "**Termination Period**") to either (i) liquidate its Open Positions by entering into offsetting Transactions or (ii) apply to and be admitted by LCH SA as an Individual Clearing Member other than a Special Clearing Member in accordance with Section 2.1.2 of the Clearing Rule Book.

During the Termination Period, LCH SA will only accept to register new Transactions of the Special Clearing Member that reduce the exposure of LCH SA to such Special Clearing Member.

Article 2.5.4.7

Notwithstanding anything to the contrary in the Clearing Rule Book, in case of occurrence of any of the following events during the Termination Period, LCH SA reserves its right, in view of a market disruption or for the purpose of ensuring the security of the Clearing System, to reduce the Termination Period as it considers fit, provided that: (x) the Termination Period can never be less than twenty-four (24) hours, ending on a Special Clearing Member Business Day; and (y) in making its decision, LCH SA, acting in good faith and following consultation with the Special Clearing Member, shall take into account the time constraints for the Special Clearing Member to orderly unwind its Open Positions during the Termination Period:

- (i) a Special Clearing Member Event mentioned in (ii) of Article 2.5.4.1;
- (ii) a Special Clearing Member Event mentioned in (iii) of Article 2.5.4.1;
- (iii) a Special Clearing Member Event mentioned in (iv) of Article 2.5.4.1;
- (iv) a Special Clearing Member Event mentioned in (v) of Article 2.5.4.1 if LCH SA believes, following consultation with the Special Clearing Member, that the Net Fail on cash is a result of the Special Clearing Member being unable to meet its obligations;
- (v) during the thirty-day (30) grace period described in Article 2.5.4.4 above, the Special Clearing Member increases its exposure to LCH SA above the amount mentioned in the Admission Agreement executed by the Special Clearing Member.

If LCH SA reduces the Termination Period in respect of a Special Clearing Member in accordance with this Article, LCH SA will notify the Special Clearing Member of the shorter applicable Termination Period in accordance with the notification procedure described in Article 2.5.4.2.

Article 2.5.4.8

If LCH SA terminates the membership of a Special Clearing Member in accordance with Section 2.5.4.B, LCH SA will inform the relevant Trading and Matching Platform(s) accordingly.

Article 2.5.4.9

If, upon the expiration of the Termination Period, the Special Clearing Member becomes an Individual Clearing Member other than a Special Clearing Member, its Open Positions will be maintained and the Special Clearing Member will be required to comply with all the obligations stemming from the Clearing Rules applicable to Individual Clearing Members other than Special Clearing Members, including in particular to pay Initial Margins and to contribute to the relevant Default Fund but excluding the requirement to be supervised by a Competent Authority under Article 2.2.1.1 (c) of the Clearing Rule Book.

Article 2.5.4.10

Upon the expiration of the Termination Period, if the Special Clearing Member has not been able to orderly unwind all its Open Positions and if it has not been admitted as an Individual Clearing Member other than a Special Clearing Member, as the case may be, LCH SA:

- (i) will not accept for registration any new Transaction of the concerned Special Clearing Member; and;
- (ii) will manage all Open Positions or, as applicable, the Trade Legs of that Special Clearing Member as set out in an Instruction.

Article 2.5.4.11

Further to the completion of the management by LCH SA of the Open Positions or, as applicable, the Trade Legs of the Special Clearing Member, any amount due by the Special Clearing Member to LCH SA pursuant to the Clearing Rules (including for the avoidance of doubt, any losses, costs and expenses incurred by LCH SA in relation to the termination of the Special Clearing Member's membership) will be debited by LCH SA from the Target 2 account of the Special Clearing Member.

Article 2.5.4.12

As long as the management by LCH SA of all Open Positions and Trade Legs of a Special Clearing Member is not complete and all amounts due to LCH SA are not paid, no resignation or termination of a Special Clearing Member's membership will become effective and the Special Clearing Member shall remain liable for all the obligations contained in the Clearing Rules applicable to Special Clearing Members.

Section 2.5.5 Resignation and Retirement for Agent Members and Sponsored Members**Article 2.5.5.1**

An Agent Member may resign from a particular Clearing Service or in respect of its Sponsored Member/Agent Member relationship, or retire from Agent Member status altogether, under the terms and conditions set out in an Instruction.

Article 2.5.5.2

An Agent Member performing the Back-up Agent Services may resign from providing Back-up Agent Services in respect of its Sponsored Member/Agent Member relationship under the terms and conditions set out in an Instruction.

Article 2.5.5.3

LCH SA may require an Agent Member to retire from Agent Member status or to resign from a particular Clearing Service under the terms and conditions set out in an Instruction.

Article 2.5.5.4

An Agent Member may resign its position as an Agent Member in respect of Payment Services provided to a Sponsored Member, under the terms and conditions set out in an Instruction.

Article 2.5.5.5

In the event of a Paying Agent Resignation, the Affected (Payment Services) Sponsored Member must invoke, in accordance with an Instruction, the provision of Back-up Paying Agent Services either itself or via its Back-up Paying Agent, which will take immediate effect on receipt by LCH SA of notification by both the Affected (Payment Services) Sponsored Member and the Back-up Paying Agent.

Any Margin obligations that arise following an Agent Member's Paying Agent Resignation will be allocated and discharged in accordance with the Clearing Rules.

Article 2.5.5.6

In the event that an Affected (Payment Services) Sponsored Member does not invoke the provision of Back-up Paying Agent Services, in accordance with Article 2.5.4.5 above, LCH SA will be entitled in its sole discretion to deem such Sponsored Member a Defaulting Sponsored Member in accordance with the Clearing Rules.

Article 2.5.5.7

A Sponsored Member shall act and provide the Back-up Paying Agent Services in accordance with the Clearing Rules, only where there has been a Paying Agent Resignation in connection with Open Positions registered in the name of such Sponsored Member and attributed to the Resigning (Payment Services) Agent Member.

Article 2.5.5.8

A Sponsored Member may resign in respect of a particular Sponsored Member/Agent Member relationship under the terms and conditions set out in an Instruction.

Article 2.5.5.9

LCH SA may require a Sponsored Member to resign from a particular Sponsored Member/Agent Member relationship under the terms and conditions set out in an Instruction.

TITLE III – CLEARING OPERATIONS

CHAPTER 1- REGISTRATION

Section 3.1.1 Registration of Transactions

Article 3.1.1.1

From the matching of the Transaction (and subject to the provisions of Article 3.1.1.10 below when a Transaction has been entered into by a Sponsored Member), LCH SA guarantees that the Transaction is automatically and immediately registered in the Clearing System in accordance with Article 1.3.2.1. LCH SA will not be held liable if a Transaction is not registered or is improperly registered in the Clearing System because of a third party's fault or Force Majeure.

Article 3.1.1.2

LCH SA shall keep accounting records of the Trade Legs of all Clearing Members concerning the Financial Instruments they are due to receive and deliver and of the related rights and obligations, by means of an account which LCH SA opens in its books in the name of each Clearing Member.

A. Registration of Transactions Registered in the Cash & Derivatives Clearing System

Article 3.1.1.3

The Cash & Derivatives Clearing System, monitors Transactions on a real time basis, and is a single system for processing Transactions carried out on markets operated by a Market Undertaking, in respect of both Securities and Derivatives Product Groups.

Article 3.1.1.4

Each Clearing Day, LCH SA registers in real time Transactions carried out in Securities & Derivatives Product Groups in accordance with Article 1.3.2.1.

LCH SA informs each Clearing Member of the Trade Legs registered in its name.

Article 3.1.1.5

LCH SA also registers in real time (i) Transactions resulting from the Exercise or Assignment of options on Securities, and (ii) Transactions resulting from the expiry of futures contracts which involve the physical settlement of their underlying Security.

B. Registration of Transactions Registered in the Fixed Income Clearing System

Article 3.1.1.6

The Fixed Income Clearing System is a real-time system for the monitoring of Transactions in respect of debt Securities (including sell & purchase transactions as well as Repos) carried out on Trading & Matching Platforms or MTS Italy.

Article 3.1.1.7

Each Clearing Day, LCH SA registers in real time Transactions in accordance with Article 1.3.2.1, within the clearing hours, as set-out in a Notice.

Article 3.1.1.8

LCH SA may prescribe the criteria which Transactions executed on or reported by Trading & Matching Platforms or MTS Italy must meet in order for them to be registered in real time.

Article 3.1.1.9

Upon real-time registration by LCH SA, Transactions governed by a national or international master agreement become immediately subject to the Clearing Rules, which override the provisions of such master agreement.

Article 3.1.1.10

Notwithstanding the above, Transactions which have been entered into by a Sponsored Member will not be registered in the Clearing System before the consent of the Agent Member has been given pursuant to Article 1.3.1.6.

For the avoidance of doubt, an Agent Member appointed to perform Back-up Agent Services, and/or Back-up Paying Agent Services only, will not be able to be attributed and consent to any such Transactions, unless they have been specifically approved by LCH SA to reduce its exposure as part of the Agent Close-out MP.

Section 3.1.2 Registration of Open Positions in the Cash & Derivatives Clearing System**Article 3.1.2.1**

On the basis of the registered Transactions, LCH SA calculates an Open Position per Clearing Member per Delivery Account, per Financial Instrument and per Settlement Date.

Article 3.1.2.2

All corporate events are processed by the relevant central securities depository. However, LCH SA will manage corporate events occurring on Financial Instruments subject to a Net Fail in the conditions described in an Instruction. In addition, in very exceptional cases, LCH SA may still perform adjustments on Open Positions reflecting corporate events on flows in compliance with market practices and/or the information of the relevant Market Undertaking or the relevant CSD of Reference or the securities settlement system.

CHAPTER 2 - ACCOUNT STRUCTURE

Article 3.2.0.1

LCH SA opens in the Clearing System an Account Structure in the name of each Clearing Member.

The said Account Structure is created by LCH SA in accordance with the Clearing Member's instructions pursuant to this Chapter 2 and provided it does not adversely affect, or is not likely to adversely affect, the proper functioning of the Clearing System.

Article 3.2.0.2

The Clearing Member may request the opening of several Individual Segregated Account Structure(s) and Omnibus Segregated Account Structure(s) for the account of its Clients or Indirect Clients provided that the opening of such Client Account Structure(s) does not adversely affect, or is not likely to adversely affect, the proper functioning of the Clearing System.

Article 3.2.0.3

In addition to the Account Structure in the name of each Clearing Member, LCH SA opens accounts dedicated to the Agent Member's activities with respect to Transactions in Fixed Income Securities and/or Baskets entered into by any of its Sponsored Members.

Section 3.2.1 Trade Legs Registration

A. Trade Legs Registration in the Cash & Derivatives Clearing System

A.1. Position Accounts

Article 3.2.1.1

Registration of Trade Legs in the Clearing Member's books shall be identical to the Posting performed in its Position Accounts in the Clearing System, as described in an Instruction.

Article 3.2.1.2

For each Clearing Member, LCH SA opens at least:

- (i) one House Position Account in the House Account Structure of such Clearing Member; and
- (ii) one Client Position Account in each Client Account Structure of such Clearing Member, where relevant.

Without prejudice to the above principles, the Clearing Member can request to open as many additional Position Accounts as needed. Such additional Position Account(s) is (are) opened at the Clearing Member's sole discretion.

The Clearing Member registers each Trade Leg in the relevant Position Account, such registration being the sole responsibility of the Clearing Member.

Therefore, all the Trade Legs registered in the Position Accounts of a Clearing Member are deemed to have been posted in the correct Position Accounts.

A.2. Market Maker's Position Accounts

Article 3.2.1.4

In addition to the Position Accounts mentioned in Article 3.2.1.1, LCH SA will open one or more Market Maker Position Accounts for Clearing Members that act as Market Makers.

Such Position Accounts are exclusively opened upon the request of each such Clearing Member to register the Trade Legs related to:

- (i) its own trading activity as Market Maker; and/or

- (ii) for its Trading Members which carry out an activity as Market Maker in accordance with a Market Maker agreement entered into with the relevant Market Undertaking.

Checking the existence of such Market Maker agreement is the sole responsibility of the Clearing Member.

Such Market Maker's Position Accounts are managed on a net basis.

Article 3.2.1.5

The Market Maker's Position Account registers exclusively all Transactions executed by (i) the Clearing Member in its capacity as a Market Maker or, as applicable, (ii) by a Trading Member in its capacity as Market Maker.

B. Trade Legs Registration in the Fixed Income Clearing System

Article 3.2.1.6

For each General Clearing Member, LCH SA opens at least:

- (i) one House Position Account in the House Account Structure of such General Clearing Member; and
- (ii) one Client Position Account in each Client Account Structure of such General Clearing Member.

Without prejudice to the above principles, the General Clearing Member can request to open as many additional Position Accounts as needed. Such additional Position Account(s) is (are) opened at the Clearing Member's sole discretion.

Article 3.2.1.7

For each Individual Clearing Member, LCH SA opens at least one House Position Account in the House Account Structure of such Individual Clearing Member.

For each Sponsored Member, LCH SA opens one House Position Account, in the House Account Structure of such Sponsored Member, per Agent Member of such Sponsored Member. The House Position Account linked to an Agent Member will register the House Trade Legs or Open Positions resulting from the Transactions attributed to this Agent Member.

Without prejudice to the above principle, the Individual Clearing Member (other than a Sponsored Member) can request to open as many additional House Position Accounts as needed. Such additional House Position Account(s) is (are) opened at the Clearing Member's sole discretion.

Article 3.2.1.8

LCH SA informs each Clearing Member (and/or Agent Member, as the case may be) both on real-time basis and, on a daily consolidated basis, of the Trade Legs registered in its name (or in the name of such Agent Member's Sponsored Member as the case may be)..

Article-3.2.1.9

Corporate events on Transactions in respect of debt Securities shall be managed as set out in an Instruction.

Section 3.2.2 Risk management

A. For Transactions Registered in the Cash & Derivatives Clearing System

A.1. Margin Accounts

Article 3.2.2.1

Within each Margin Account of each Clearing Member, for the purpose of risk calculation, as described in Title IV "Risk Management", LCH SA nets, per Financial Instrument, the Trade Legs registered in the Position Account(s) which are attached to such Margin Account.

Article 3.2.2.2

For each Product Group in which the Clearing Member is active, LCH SA shall open at least:

- (i) one House Margin Account in the House Account Structure of such Clearing Member; and
- (ii) one Client Margin Account in each Client Account Structure of such Clearing Member.

Without prejudice to the above principles, the Clearing Member can request to open as many additional Margin Accounts as needed. Such additional Margin Account(s) is (are) opened at the Clearing Member's sole discretion.

Article 3.2.2.3

A Client Margin Account may be linked to one or more Client Position Account(s) depending on the level of segregation requested by the relevant Client(s).

A.2. Market Makers Margin Accounts

Article 3.2.2.4

Upon request of a Clearing Member, in addition to the Margin Accounts mentioned in Article 3.2.2.1, LCH SA will open, one or more:

- (i) House Margin Accounts for the registration of its House Open Positions resulting from Transactions negotiated by such Clearing Member in its capacity as Market Maker;
- (ii) Client Margin Accounts for the registration of Client Open Positions resulting from Transactions negotiated by their Trading Members which have entered into a Market Maker agreement with the relevant Market Undertaking. Checking the existence of such Market Maker agreement is the sole responsibility of the Clearing Member.

Article 3.2.2.5

The Market Maker's Margin Account registers exclusively all Transactions executed for the Clearing Member's own account in its capacity as Market Maker or, as applicable, for the account of a Trading Member in its capacity as a Market Maker.

B. For Transactions Registered in the Fixed Income Clearing System

B.1. Margin Accounts

Article 3.2.2.6.

Pursuant to the risk calculation described in Title IV, LCH SA carries-out daily or several times a day, a Margin calculation on the basis of Open Positions corresponding to the Trade Legs registered in the Clearing Member's Position Accounts.

For the purpose of risk calculation, the off-setting is performed by origin (Client Account or House Account) by Financial Instrument and, when the Clearing Member is a Sponsored Member using more than one Agent Member, by Agent Member of such Sponsored Member.

B.2. Collateral Accounts

Article 3.2.2.7

For each Clearing Member (other than a Sponsored Member), LCH SA shall open at least:

- (i) one House Collateral Account in the House Account Structure of such Clearing Member; and
- (ii) one Client Collateral Account in each Client Account Structure of such Clearing Member.

For each Sponsored Member, LCH SA opens one House Collateral Account, in the House Account Structure of such Sponsored Member, per Agent Member of such Sponsored Member. Each House Collateral Account shall be linked to the Sponsored Member's House Position Account linked to the relevant Agent Member.

Without prejudice to the above principles, the Clearing Member (other than a Sponsored Member) can request to open as many Collateral Accounts as it needs. Such additional Collateral Account(s) is (are) opened at the Clearing Member's sole discretion.

Article 3.2.2.8

A Client Collateral Account may be linked to one or more Client Margin Account(s) depending on the level of segregation requested by the relevant Clearing Member.

C. SM/AM Default Fund Account

Article 3.2.2.9

For each Agent Member, and as applicable, LCH SA shall open separately for each of the fixed income Default Fund and the Triparty Repo Default Fund one SM/AM Default Fund Account per Sponsored Member supported by that Agent Member, in the name of that Agent Member. Each SM/AM Default Fund Account shall be linked to the relevant Sponsored Member's House Position Account linked to the Agent Member and the relevant Default Fund, and shall register the Contributions posted by the Agent Member in connection with the Open Positions of the relevant Sponsored Member exclusively.

Article 3.2.2.10

LCH SA shall be able to identify at any time the Sponsored Member holding the Open Positions to which each SM/AM Default Fund Account is linked.

D. Agent Member's Buffers Accounts

D.1. Agent Buffer Account

Article 3.2.2.11

For each Agent Member, LCH SA shall open one Agent Buffer Account, in the name of the Agent Member, to record any Agent Buffer provided by such Agent Member.

The Agent Buffer Account shall be linked to all House Position Accounts of all Sponsored Members for which the relevant Agent Member is acting.

D.2. Agent Resource Contribution Account

Article 3.2.2.12

For each Agent Member, LCH SA shall open in its books one Agent Resource Contribution Account, in the name of the Agent Member, to record any Agent Resource Contribution provided by such Agent Member.

The Agent Resource Contribution Account shall be linked to all House Position Accounts of all Sponsored Members for which the relevant Agent Member is acting.

Section 3.2.3 Settlement

A. For Transactions Registered in the Cash & Derivatives Clearing System

Article 3.2.3.1

For each Clearing Member, LCH SA opens at least one Delivery Account.

Without prejudice to the above principles, the Clearing Member can request LCH SA to open as many Delivery Accounts as it needs. Such additional Delivery Account(s) is (are) opened at the Clearing Member's sole discretion.

Article 3.2.3.2

At the Clearing Member's request and in its sole responsibility, Open Positions contained in one or several Position Account(s) are registered in one or several Delivery Account(s), according to criteria set out in an Instruction.

Article 3.2.3.3

Each Delivery Account is linked to one Settlement Address for the delivery of Securities and to one Settlement Address per currency, for payment of cash.

Article 3.2.3.4

The organisation of the Delivery Accounts reflects the Clearing Member's use of the Settlement Agent(s)/Payment Agent(s) facility. For delivery versus payment purposes, a Clearing Member can use the services of one or several Payment Agent(s) per central bank and per Credit Institution, accepted by LCH SA, and/or one or several Settlement Agent(s) per securities settlement system and/or per central securities depository.

The Clearing Member notifies to LCH SA, the complete settlement address details so that LCH SA can parameterise the roll up from the relevant Position Accounts of such Clearing Member to its Delivery Accounts according to the conditions set out in an Instruction.

B. For Transactions Registered in the Fixed Income Clearing System

Article 3.2.3.5

On the basis of Trade Legs registered in the Position Accounts, LCH SA calculates Open Positions by ISIN code and by intended Settlement Date at the end of the Clearing Day before the intended Settlement Date.

Article 3.2.3.6

As an exception to the above Article, LCH SA does not calculate Open Positions for settlement purpose on the basis of Trade Legs resulting from:

- (i) Same-day Repo Initial Transactions; and
- (ii) Transactions in Fixed Income Securities received on D after the cut off time set-out in a Notice and whose intended Settlement Date occurs on D+1 ("late trades" as set-out in a Notice).

Such Trade Legs are settled on a gross basis.

Section 3.2.4 Client Account Structure of Indirect Clients

Article 3.2.4.1

A Clearing Member shall open, in respect of its Indirect Clients, one or several dedicated Client Account Structures which will be composed of Client Accounts pursuant to Sections 3.2.1 to 3.2.3.

Article 3.2.4.2

For the Fixed Income Clearing System, a Clearing Member may request the opening of a Client Account Structure for Indirect Client(s) provided that:

- (i) the relevant Client has opted for an Individual Segregated Account Structure; and
- (ii) the Indirect Client can trade Fixed Income Securities directly on Trading & Matching Platforms and/or MTS Italy.

Article 3.2.4.3

For the Cash and Derivatives Clearing System, a Clearing Member may request the opening of the following Client Account Structure(s) for Indirect Client(s) exclusively:

(a) one or several Gross Omnibus Segregated Account Structures, where Indirect Client(s) relate to a single Known Client only;

(b) one or several Net Omnibus Segregated Account Structures, where Indirect Client(s) relate(s) to different Clients.

The opening of the above Client Account Structures for Indirect Client(s) by LCH SA shall be made upon the request, and under the sole responsibility, of the Clearing Member.

CHAPTER 3 - OPERATIONAL MANAGEMENT

Section 3.3.1 General Provisions for Transactions Registered in the Cash & Derivatives Clearing System

A. Give-up

Article 3.3.1.1

Give-Up is performed by use of the specific functions available to Clearing Members in the Clearing System.

Terms and conditions for Give-Up are set out in an Instruction.

Article 3.3.1.2

A Give-Up function may involve a sending Clearing Member (“the allocator”) and a receiving Clearing Member (“the allocatee”).

In such case, the receiving Clearing Member must accept, by a take-up, the Give-Up. It must confirm the recording of the Transaction in its books by the appropriate Posting.

B. Transaction Cancellation

Article 3.3.1.3

The cancellation of a Transaction is possible only upon the request of the relevant Market Undertaking, as specified in its Trading Rules.

Such request results in LCH SA cancelling the two corresponding Trade Legs. Therefore, the obligation of delivery and the corresponding obligation of payment are revoked, and the parties are put back in the situation as if the relevant Clearing Members obligations had never existed.

The conditions under which such cancellation may occur are set out in an Instruction.

C. Correction

Article 3.3.1.4

Terms and conditions for Corrections are set out in an Instruction

D. Transfer of Open Positions

Article 3.3.1.5

The Transfer of Open Positions shall have no consequences on the segregation principles set out in Title III Chapter 2.

Transfers of Open Positions may be carried out till the expiry of the relevant Open Positions.

The Transfer of an Open Position is performed by LCH SA upon the explicit request of the Clearing Members pursuant to the conditions set out in an Instruction.

E. Exercise and Assignment (for Derivatives)

Article 3.3.1.6

An Instruction specifies how Assignment takes place for each option contract upon Exercise.

When exercised, an option on underlying Financial Instruments is either converted on the Exercise date into a Transaction in such underlying Financial Instruments at the exercise price or cash settled. The trades thus generated are registered and settled under the terms and conditions set out in an Instruction.

Section 3.3.2 Functionalities Available in the Fixed Income Clearing System

Article 3.3.2.1

A reverse Transaction, having the same intended Settlement Date as the initial Transaction may, following to the netting process, limit or cancel the effects of the initial Transaction provided that such reverse Transaction is registered in the Clearing System at the latest on the Clearing Day before the intended Settlement Date of the initial Transaction and within the clearing hours, as set-out in a Notice. Such process is initiated by the related Clearing Member(s).

At the request of a Trading and Matching Platform, Regulated Market or MTF, and with the consent of each Clearing Member party to a Transaction (such request and such consents having to be received before close of business on the Clearing Day the Transaction was entered into), such Transaction may be cancelled by LCH SA until LCH SA sends the instructions of settlement to the relevant Securities settlement systems, the relevant Central Securities Depositories of Reference or the relevant central banks. LCH SA in such case cancels the two corresponding Trade Legs, and following such cancellation, the obligation of delivery and the corresponding obligation of payment are revoked.

CHAPTER 4 - SETTLEMENT AND DELIVERY

Section 3.4.1 Settlement and Delivery of Transactions Registered in the Cash & Derivatives Clearing System

A. Common Provisions

A.1. Provisions Related to Securities

Article 3.4.1.1

For Transactions registered in the Cash & Derivatives Clearing System carried out on markets operated by a Market Undertaking, giving rise to delivery of Financial Instruments, payment and delivery of Financial Instruments, are made, except as otherwise stipulated in an Instruction, through a system called "settlement connect", which is managed by LCH SA.

Article 3.4.1.2

Without prejudice to Article 1.3.2.5, which defines legal enforceability of netting, the netting of Open Positions with the same intended Settlement Date, the same ISIN, the same currency and the same Trade Date, registered in the same Delivery Account, is performed on Registration Date.

Delivery and payment instructions may give rise to partial payments and deliveries.

Article 3.4.1.3

Following the operational netting of Open Positions within the Delivery Account, LCH SA will apply Net Fails' management processes set out in an Instruction.

Article 3.4.1.4

Where an Open Position is not settled on its intended Settlement Date, a procedure for settling Net Fails, as specified in an Instruction, will apply.

Article 3.4.1.5

A Clearing Member can choose to have Securities delivered/debited either at the relevant central securities depository or at a securities settlement system, pursuant to the conditions set out in an Instruction.

A.2. Provisions Relating to Derivatives (excluding commodities)

Article 3.4.1.6

When clearing Derivatives, the underlying of which are physically settled Securities, a Clearing Member, which is not itself a Trading Member or a Clearing Member on the corresponding Securities markets must:

- (i) designate one Trading Member or Clearing Member which has the appropriate settlement solutions to perform, on its behalf, all its settlement obligations, Exercises or Assignments in respect of the relevant Derivatives Transactions; or
- (ii) where the underlying is not traded on any cash market operated by a Market Undertaking, have the appropriate settlement solutions, to settle the relevant underlying Securities.

Article 3.4.1.7

The expiry of a Derivative, the underlying of which is a Security, gives rise either to the exchange of the underlying asset against cash payment, or to a cash settlement, pursuant to the conditions set out in an Instruction. The delivery of the underlying Securities of physically settled Derivatives is performed on outstanding Open Positions at the maturity date and under the conditions set out in an Instruction.

A.3. Provisions Related to Commodities

Article 3.4.1.8

Clearing Members must, on a daily basis, net their Open Positions registered in their Position Account. In case of failure to perform such obligation, LCH SA will charge a penalty fee for late netting as set out in the fee grid published on the LCH SA web-site.

Article 3.4.1.9

At expiry, any Open Position gives rise to the payment or delivery of a lot of goods, pursuant to an Instruction, within the limits of Article 1.3.2.9.

Article 3.4.1.10

For the delivery of commodities, a buying Clearing Member and a selling Clearing Member are placed in contact with each other.

The delivery requirements for commodities' contracts take account of customary practices in the relevant physical market, as specified in a Notice.

Article 3.4.1.11

Clearing Members can opt between the two following delivery procedures:

- LCH SA delivery procedure (also known as "MATIF guarantee") whereby LCH SA's obligations, as set out in Articles 1.3.2.6 and 1.3.2.9 of the Clearing Rule Book, apply ;
- An alternative delivery procedure, consisting in an amicable agreement between the selling Clearing Member and the buying Clearing Member on the delivery terms. In such case, LCH SA's obligations, as set out in Article 1.3.2.6 of the Clearing Rule Book, will not apply.

Unless otherwise stated by the Clearing Members on the third Clearing Day following the contract expiry, according to a process defined in an Instruction, the LCH SA delivery procedure applies.

Article 3.4.1.12

The delivery requirements for commodities contracts are detailed in an Instruction.

Section 3.4.2 Settlement and Delivery of Transactions Registered in the Fixed Income Clearing System.

Article 3.4.2.1

For Transactions carried out on Trading & Matching Platforms or MTS Italy, payment and delivery thereof are made pursuant to an Instruction.

Article 3.4.2.2

As far as Transactions executed on and reported on Trading & Matching Platforms or on MTS Italy are concerned, and without prejudice to provisions regarding calculation of Margin, LCH SA sends on the Clearing Day before the intended Settlement Date of the relevant Transaction, settlement instructions, on the basis of Open Positions as described in Article 3.2.3.5 or Trade Legs as described in Article 3.2.3.6, registered in each Delivery Account to the relevant central Securities depository or Securities settlement system.

Article 3.4.2.3

For Transactions in debt Securities listed in a Notice, settlement instructions are divided in regular parcels equal to a pre-defined amount (i.e. shape size), in order to reduce the size of each instruction pursuant to the conditions specified in a Notice. The residual balance will constitute an additional instruction.

Notwithstanding the above, if instructions remain unsettled and are lower than the regular parcels referred to above, LCH SA may request the buying Clearing Member to accept the partial delivery of Securities under the conditions set out in an Instruction. If the latter refuses to do so, LCH SA may charge the buyer for the cost of capital employed as a result of its refusal to do so.

Article 3.4.2.4

Each Delivery Account is linked to one Settlement Address.

The organisation of the Delivery Accounts reflects the Clearing Member's use of the Settlement Agent(s)/Payment Agent(s) facility. A Clearing Member can use the services of one or several Payment Agent(s) per central bank and per Credit Institution, accepted by LCH SA, and/or one or several Settlement Agent(s) per Securities settlement system and/or per central Securities depository.

Section 3.4.3 Settlement Failure

A. Net Fails

Article 3.4.3.1

Net Fails may at any time be subject, at the initiative of LCH SA, to repurchase, resale or any relevant procedure specified in an Instruction, at the risk and expense of the defaulting Clearing Member.

Article 3.4.3.2

Net Fails are subject to an indemnity for late delivery, late payment or inability to take delivery on the intended Settlement Date, charged to the defaulting Clearing Member by LCH SA pursuant to the fee grid.

Article 3.4.3.3

In case of Net Fails corresponding to Transactions registered in the Cash and Derivatives Clearing System, LCH SA continues to call Variation Margin for the failed Open Positions. No additional Initial Margin is required for such Open Positions.

In case of Net Fails corresponding to Transactions registered in the Fixed Income Clearing System, except in respect of Special Clearing Members, LCH SA will call dedicated Margin (negotiation risks on Net-Fails) as stated in an Instruction.

B. Management of Settlement Failure for Futures Contracts on Commodities

Article 3.4.3.4

Settlement failures in respect of commodities futures contracts are subject to an indemnity for late delivery or late payment, charged to the defaulting Clearing Member by LCH SA, pursuant to an Instruction.

Article 3.4.3.5

In case of payment or delivery failure corresponding to Transactions in futures contracts in respect of commodities, LCH SA continues to call Variation Margin for the failed Open Positions, until receipt of the notice of performance duly filled-in and signed by the buying Clearing Member and the selling Clearing Member. No additional Initial Margin is required for these Open Positions.

Article 3.4.3.6

The delivery failure procedure is defined in an Instruction.

CHAPTER 5 - REGISTRATION IN A TRADE REPOSITORY

Article 3.5.1

LCH SA shall report for itself, and on behalf of Clearing Members, the details of each Trade Leg resulting from Transactions in Derivatives Markets and any modification or termination of such Trade Leg to a Trade Repository no later than the working day following the conclusion, modification or termination of such Trade Leg, in accordance with the requirements of EMIR.

For the avoidance of doubt, LCH SA does not report to the Trade Repository any Transaction entered into between a Clearing Member and/or any of its Clients.

The reporting service to a Trade Repository will be implemented by LCH SA at a date to be specified in a Notice.

TITLE IV – RISK MANAGEMENT

CHAPTER 1 - GENERAL PROVISIONS

Article 4.1.0.1

The risk calculations described in this Title are based on the Open Positions registered in the Clearing Members' Margin Accounts as described in Section 3.2.2.

Article 4.1.0.2

At LCH SA's request, Clearing Members (and Agent Members, including, upon the occurrence of an Agent Close-out Event or Paying Agent Resignation, Agent Members appointed to perform Back-up Agent Services and/or Back-up Paying Agent Services which have elected to perform such Back-up Agent Services and/or Back-up Paying Agent Services, as the case may be) shall communicate to LCH SA all information concerning the identity, the Positions, and the solvency of their Clients (or Sponsored Members) as the case may be.

They will only decline to provide the required information where they are prevented from doing so by a mandatory provision of law or national regulation.

Article 4.1.0.3

LCH SA can request information daily from the Clearing Member or the Agent Member (including, upon the occurrence of an Agent Close-out Event or Paying Agent Resignation, Agent Members appointed to perform Back-up Agent Services and/or Back-up Paying Agent Services which have elected to perform such Back-up Agent Services and/or Back-up Paying Agent Services) in order to continuously monitor the risk management as performed by the Clearing Member or the Agent Member.

Article 4.1.0.4

LCH SA requires Clearing Members to open Position Accounts, in order to record separately the Positions of the Clearing Member's Clients under the conditions set out in an Instruction.

Article 4.1.0.5

LCH SA may define Open Position limits and limits on risk exposure applicable to Clearing Members. Such limits are set out in an Instruction.

Article 4.1.0.6

When these limits are reached, LCH SA can increase the Margin requirements in respect of a Clearing Member's Open Positions after having informed the operators of the relevant market or Trading & Matching Platforms.

Article 4.1.0.7

In addition, LCH SA may order a Clearing Member to reduce its Open Positions within a stipulated time limit. If the size of the Open Positions is not reduced within the time limit, LCH SA can automatically liquidate the Open Positions that exceed the authorised limits. Moreover, LCH SA can also establish a market position limit and may require that, from a specified date onwards, only closing orders will be accepted.

Article 4.1.0.8

With regards to Special Clearing Members, LCH SA has set out the Borrowing Thresholds applicable to each Special Clearing Member, in accordance with a predetermined methodology, in the Admission Agreement executed by the Special Clearing Member.

LCH SA reviews and assesses, and where it deems necessary amends, the Borrowing Thresholds of each Special Clearing Member on a regular basis and at least annually. The revised Borrowing Thresholds will apply to a Special Clearing Member from the expiry of the thirty (30) calendar day notice sent to the Special Clearing Member (if the last day is not a Clearing Day, such period will end on the Clearing Day immediately following the last day of this period).

Article 4.1.0.9

Notwithstanding anything to the contrary in the Clearing Rule Book, a Special Clearing Member is exempted from meeting Initial Margin, Intra-day Margin and any additional Margin requirements, as set out in Chapter 2 of this Title IV, but must satisfy Variation Margin requirements.

Article 4.1.0.10

The provisions of Chapters 3 to 5 of this Title IV, except article 4.3.3.3 and Section 4.5.4 of the Clearing Rule Book, shall not apply to a Special Clearing Member.

CHAPTER 2 - MARGIN REQUIREMENTS

Article 4.2.0.1

Variation Margin and Initial Margin are debited or credited by LCH SA each Clearing Day, at a frequency set-out in an Instruction.

Article 4.2.0.2

Intra-day Margin is called and debited in case of exceptional circumstances pursuant to the terms and conditions described in an Instruction and in a Notice.

Article 4.2.0.3

In addition to Margin LCH SA shall, in its sole discretion, at all times and at any time during the day, be entitled to impose upon a Clearing Member additional margin requirements as it reasonably deems useful or necessary.

This can be done either on an individual basis or based on the nature of the Financial Instruments to which the relevant Open Positions relate. Any decision made on the basis of these provisions will be duly notified to the Clearing Members.

Article 4.2.0.4

Unless otherwise indicated by LCH SA, the Clearing Member(s) in question shall be obliged to ensure that the amount of Collateral corresponding to the additional margin requirement is transferred or, as the case may be, guaranteed, at the latest within one hour of it having been informed thereof.

Article 4.2.0.5

LCH SA shall publish in an Instruction:

- (i) the method used to calculate Margin requirements;
- (ii) the type of Securities, assets or bank guarantees to be accepted as Collateral to meet Margin calls by LCH SA and by Clearing Members;
- (iii) Margin requirements.

LCH SA shall publish in a Notice:

- (i) parameters used to calculate Initial Margin;
- (ii) any discount ("haircut") to be applied to the market value of Collateral, depending on its nature and maturity;
- (iii) price fluctuation limits;
- (iv) Intra-day Margin detailed terms and conditions and notably thresholds and frequency.

Article 4.2.0.6

Clearing Members shall call initial margin and variation margin from their Clients having Positions in Securities or Derivatives traded on Market Undertakings in an amount based on the same parameters and methodology as the LCH SA Initial Margin and Variation Margin requirements.

LCH SA may authorise the use of other methods and parameters after having checked that they are adequate and that they offer the same level of security in relation to the risks it assumes. To this end, the Clearing Member must submit the details of the method it proposes to LCH SA for prior approval. Submitted methods will be assessed by LCH SA on a case by case basis.

As far as Intra-day Margin is concerned, the Clearing Members have no obligation to call for Intra-day Margins from their Clients having Positions in Derivatives traded on Market Undertakings in an amount based on the same parameters and methodology as the LCH SA Intra-day Margin.

Article 4.2.0.7

Clearing Members clearing Securities shall ensure that their Clients provide them with such collateral as the Clearing Member considers from time to time necessary for the proper covering of the Client's Positions.

Article 4.2.0.8

No Margin will have to be charged if the settlement obligation of the Client is covered by the cash equivalent in case of purchase, or the Securities equivalent in case of a sale. The amount in cash or the number of Securities is blocked by the Clearing Member from the execution up until the Transaction is settled.

Article 4.2.0.9

Once the Settlement Price has been communicated, the Variation Margin and Initial Margin amounts become immediately payable without further notice. An Instruction specifies the maximum time limit for payment of the Variation Margin and Initial Margin amount.

Article 4.2.0.10

LCH SA shall calculate and call Margin on Transactions executed on or reported by Trading & Matching Platforms, as specified in an Instruction.

CHAPTER 3 - DEFAULT FUND

Article 4.3.0.1

Three separate Default Funds are established by LCH SA pursuant to this Clearing Rule Book:

- (i) one for Clearing Members complying with the financial requirements set-out in Section 2.3.2 and authorised to clear Transactions in Securities and/or Derivatives Product Groups (excluding MTS Italy); (the “**cash and derivatives Default Fund**”);
- (ii) one for Clearing Members complying with the financial requirements set-out in Section 2.3.3 and authorised to clear Transactions executed on, or reported by, Trading & Matching Platforms and the MTS Italy Regulated Market; (the “**fixed income Default Fund**”); and
- (iii) one for Clearing Members complying with the financial requirements set-out in Section 2.3.3 and authorised to clear Triparty Repos; called the “Triparty Repo Default Fund”.

The purposes of the Default Fund are the same in each case.

However, each of the cash and derivatives Default Fund, fixed income Default Fund and Triparty Repo Default Fund may only be used to cover losses resulting from an Event of Default relating to a Clearing Member’s cash and derivatives business, fixed income business or Triparty Repo business respectively.

Section 4.3.1 Contribution to the Default Funds

Article 4.3.1.1

A Clearing Member, other than a Special Clearing Member, is obliged to contribute (or, if it is admitted by LCH SA as a Sponsored Member, is obliged and shall be responsible to ensure that its Agent Member shall contribute) to the relevant Default Fund(s) mentioned in Article 4.3.0.1 according to the terms and conditions set-out in an Instruction. Such contribution will depend on the Product Group(s) that it is authorised to clear and it will be delivered by:

- (i) transferring Collateral outright to LCH SA; or
- (ii) for a Clearing Member other than a Sponsored Member, by transferring, directly or indirectly, to a central bank, assets accepted as Collateral by such central bank under the conditions defined by the central bank for the issuance by it of a Central Bank Guarantee in favour of LCH SA.

In the second case, the Clearing Member (other than a Sponsored Member) must ensure the performance of the central bank’s obligations by entering into arrangements acceptable to LCH SA for the issuance of such Central Bank Guarantee.

Thus, the Clearing Member (other than a Sponsored Member) must fulfil its obligation to provide eligible Collateral to the central bank within the time stipulated in the relevant Counter-guarantee Agreement so that the central bank can issue its Central Bank Guarantee to LCH SA within the time and under the conditions specified in a Notice.

Article 4.3.1.2

The Agent Member shall make Contributions to the relevant Default Fund(s) with respect to all Transactions registered in the name of its Sponsored Member(s) with LCH SA and attributed to such Agent Member.

For the avoidance of doubt, a Clearing Member admitted by LCH SA as a Sponsored Member is, in accordance with Article 2.14 of EMIR, responsible for discharging all the financial obligations that arise from its participation in LCH SA, including but not limited to the obligation to contribute to the Fixed Income Default Fund and Triparty Repo Default Fund mentioned in Article 4.3.0.1, as the case may be.

Accordingly, a Sponsored Member may be declared in default by LCH SA in accordance with the Clearing Rules in the event of any failure to pay or deliver by its Agent Member with respect to the Contributions that have been determined by LCH SA in relation to this Sponsored Member.

Article 4.3.1.3

The amount to be contributed by a Clearing Member to the Cash & Derivatives Default Fund shall be determined taking into account the risk associated with the Open Positions of such Clearing Member in respect of the relevant Product Group(s).

The amount to be contributed by a Clearing Member (or its Agent Member if any) to the Fixed Income and Triparty Repo Default Funds shall be determined taking into account the risk associated with the Open Positions and the Collateral of such Clearing Member or the Open Positions of the Sponsored Member corresponding to the Transactions attributed to that Agent Member, as the case may be, in respect of the relevant Product Group(s).

Article 4.3.1.4

Once a month, LCH SA shall determine the size of each Default Fund and the level of the contribution of each individual Clearing Member (or its Agent Member if any). The method of calculation of such contribution together with the level of any applicable minimum contribution is specified in an Instruction. Upon being authorised to clear a new Product Group, and before starting their activities in relation thereto, Clearing Members (or their Agent Members) shall be required to pay the minimum contribution to the relevant Default Fund, where applicable.

Section 4.3.2 Calls on the Default Funds

Article 4.3.2.1

Calls may be made on the relevant Default Fund following an Event of Default, in accordance with the provisions of Article 4.5.2.7 (for the avoidance of doubt, following an Event of Default, LCH SA is allowed to draw partial amounts from the relevant Default Fund as many times as needed to cover the estimated losses incurred as a result of, following, or in connection with, an Event of Default).

Article 4.3.2.2

Following a call, funds received from a central bank pursuant to any Central Bank Guarantee issued in favour of LCH SA as provided in Article 4.3.1.1 shall provide a valid discharge of the amount owed by the respective Clearing Members (other than Sponsored Members).

Article 4.3.2.3

If LCH SA calls upon one of the Default Funds, it shall use the sums provided to perform its obligations under Section 1.3.2 and to cover the repayment of any related loans, expenses, damages, interest charges and/or other expenditure.

Article 4.3.2.4

Should there be any surplus after such performance, or profits earned from the performance of its obligations, then such amounts shall be repaid by LCH SA to the contributors in proportion to their respective contributions either directly, or where applicable, via the central bank, subject to the right of LCH SA to retain Collateral provided by the Affected Agent Member in accordance with the Clearing Rules.

Section 4.3.3 Refilling of the Default Funds and Service Continuity

A. Refill Contributions to the Default Funds

Article 4.3.3.1

If an Event of Default in relation to a Clearing Member is declared under the Clearing Rules and a call has been made on the fixed income Default Fund, the cash and derivatives Default Fund or the Triparty Repo Default Fund, as relevant, and LCH SA determines that a certain percentage thereof (to be set out in an Instruction) has been used, LCH SA may, by notice in writing, require each non-Defaulting Clearing Member (or, for non-Defaulting Sponsored Members, each of their Agent Members) contributing to the relevant Default Fund to deposit and maintain with LCH SA an additional contribution amount (each a **"Refill Contribution"**) in accordance with the provisions set out in an Instruction (for

the avoidance of doubt, Refill Contributions will be considered unfunded as long as LCH SA has not issued such a notice).

B. Service Continuity

Article 4.3.3.2

In relation to losses attributable to the fixed income, the cash and derivatives or the Triparty Repo activity of a Defaulting Clearing Member, where, after an Event of Default, LCH SA determines that the losses resulting from such Event of Default will exceed the amounts to be applied to it under Article 4.5.2.7 (i) to (vi) (a), LCH SA may implement the relevant loss distribution process (the “**Fixed Income Loss Distribution Process**”, and the “**Cash and Derivatives Loss Distribution Process**”, and the “**Triparty Repo Loss Distribution Process**” respectively) set-out in an Instruction (the “**Fixed Income Service Continuity and Service Closure Instruction**”, the “**Cash and Derivatives Service Continuity and Service Closure Instruction**”, and the “**Triparty Repo Service Continuity and Service Closure Instruction**” respectively), pursuant to which the non-Defaulting Clearing Members, other than Special Clearing Members (or, for non-Defaulting Sponsored Members, each of their Agent Members), will be required to contribute individually to such losses in an amount which may not exceed 100% of each non-Defaulting Clearing Member’s or Agent Member’s contribution to the relevant Default Fund immediately prior to the occurrence of such Event of Default (the “**Service Continuity Contribution**”). The Service Continuity Contribution shall be in addition to the contributions and Refill Contributions of each non-Defaulting Clearing Member (or, for non-Defaulting Sponsored Members, of each of their Agent Members) to the relevant Default Fund.

C. Service Closure

Article 4.3.3.3

Where, following the conclusion of the Fixed Income Loss Distribution Process, the Cash and Derivatives Loss Distribution Process, or the Triparty Repo Loss Distribution Process, LCH SA determines that it would not in future have sufficient resources to meet its contractual obligations towards non-defaulting Clearing Members in connection with the Fixed Income Clearing Service, the Cash and Derivatives Clearing Service, or the Triparty Repo Clearing Service respectively, LCH SA shall first invite non-defaulting Clearing Members (or, for non-Defaulting Sponsored Members, each of their Agent Members), except the non-Defaulting Clearing Members admitted as Special Clearing Members, to make voluntary payments and, if such voluntary payments are not sufficient, may then implement the relevant service closure process set out in the relevant Instruction.

D. Effect on Termination of Clearing Members’ and Agent Members’ Membership

Article 4.3.3.4

As long as there remains a default management process (as contemplated by Article 4.5.2.6) outstanding in relation to any Event of Default and until the expiry of the Cash and Derivatives Default Period of the Fixed Income Default Period, or of the Triparty Repo Default Period, as set-out in the above mentioned relevant Instruction, no resignation, retirement or termination of a Clearing Member’s or Agent Member’s LCH SA membership will become effective and all non-Defaulting Clearing Members (including resigning Clearing Members who decided to resign or retire and Clearing Members whose Clearing Member status is to be terminated for whatever reason) and Agent Members, as the case may be, shall remain liable for all the obligations contained in Articles 4.3.3.1 to 4.3.3.3 above, except Special Clearing Members, and in the relevant Instructions, in relation to any Event of Default which has occurred in relation to the relevant Product Group before the expiry of such Fixed Income Default Period, Cash and Derivatives Default Period, or Triparty Repo Default Period, as applicable.

Section 4.3.4 Other Provisions

Article 4.3.4.1

Payment of any amount referred to in this Chapter shall not discharge the Defaulting Clearing Member from its obligation to perform properly its obligations and pay compensation for any damage caused by its Event of Default.

Article 4.3.4.2

LCH SA will promptly report to the Clearing Members and Agent Members, as the case may be, on, and account for, any withdrawals made from the Default Funds.

Upon the effective day of termination of the membership, and subject to the relevant Clearing Member or Agent Member, as the case may be, having fully discharged all its obligations vis-à-vis LCH SA pursuant to the Clearing Rules or the Admission Agreement, LCH SA shall repay to such ex-Clearing Member or ex-Agent Member, as the case may be, any of its contributions which have not been used.

For the avoidance of doubt, the Agent Member will not be considered as having fully discharged all its obligations vis-à-vis LCH SA until all the Transactions of the Sponsored Members of the Agent Member have matured and are being duly settled, closed or have been unwound, reversed or otherwise terminated or, if an Event of Default has occurred with respect to one or more of the Sponsored Members of the Agent Member, after the completion of the default management process of such Sponsored Member(s).

Article 4.3.4.3

For the avoidance of doubt, the provisions of Article 4.3.1.2 with respect to the Contributions to the relevant Default Fund(s) shall apply mutatis mutandis to all the other Contributions to be made pursuant to Chapter 3 of Title IV of the Clearing Rule Book.

CHAPTER 4 - COLLATERAL

Article 4.4.0.1

When the amount of Collateral deposited by a Clearing Member to cover its Margin and Default Fund contribution obligations, or deposited by an Agent Member to cover the Margin obligations of its Sponsored Members and its Contribution(s), Agent Buffer and ARC obligations, is more than needed to cover such obligations, LCH SA will deem the surplus of assets governed by the same legal provisions as Collateral.

A. Principles

Article 4.4.0.2

A Clearing Member or Agent Member shall provide sufficient Collateral to LCH SA as necessary for the performance of the obligations of the Clearing Member or Agent Member, as the case may be.. The amount of Collateral is determined by LCH SA.

Article 4.4.0.3

Any Collateral required to be provided by a Clearing Member or Agent Member must be provided not later than the time set by LCH SA in an Instruction.

Where the Clearing Member (other than a Sponsored Member) is to provide Collateral in the form of the issuance of a Central Bank Guarantee by a central bank, it must fulfil its obligation to provide eligible collateral to the central bank by the time stipulated in the relevant Counter-guarantee Agreement so that the central bank can issue its Central Bank Guarantee to LCH SA by no later than the time set by LCH SA in an Instruction.

Article 4.4.0.4

Where Collateral is due to LCH SA, LCH SA reserves the right to exclude certain types of collateral on the grounds, *inter alia*, of illiquidity or insufficient outstandings, and may accept other assets on the terms specified by LCH SA in a Notice.

Article 4.4.0.5

Collateral posted with LCH SA in a Client Collateral Account to cover Client Open Positions registered in one or several Client Margin Account(s) linked to the said Client Collateral Account shall not be used to cover:

- (i) the House Open Positions; or
- (ii) any Client Open Positions registered in other Client Account Structures of such Clearing Member.

Article 4.4.0.6

The registration of Collateral in the Clearing Members' books must be established in such a way as to make possible at any moment the distinction between, on the one hand, the assets deposited as a guarantee and the movements related to its House Open Positions and, on the other hand, the assets deposited as a guarantee and the movements related to the Client Open Positions registered in each of its Client Margin Accounts.

The Clearing Member or Agent Member must indicate to LCH SA to which Collateral Account or Agent Collateral Account, as the case may be, the Collateral must be allocated, within the conditions specified in a Notice.

B. Specificities

B.1. Trading & Matching Platforms

Article 4.4.0.7

For Transactions on Trading & Matching Platforms, LCH SA may take Collateral in advance, as provided in a Notice, for "value-today Transactions" or for any other Transactions as may be specified in the Notice.

C. Buffers

C.1. Agent Buffer

Article 4.4.0.8

An Agent Member is required to transfer Collateral to LCH SA in order to cover any shortfall in Margin or Contributions (as required), in connection with Transactions of its Sponsored Members for which it is the Agent Member. The value of such Agent Buffer shall be determined by LCH SA on the basis of the Open Positions of Sponsored Members attributed to such Agent Member in accordance with the Clearing Rules, shall be recorded by LCH SA as attributable to such Agent Member and shall be attributed to its Agent Buffer Account with LCH SA.

Any payments made by an Agent Member in respect of its Agent Buffer obligations shall be delivered by transferring Collateral outright to LCH SA.

Article 4.4.0.9

The Agent Member shall be obliged to ensure that the amount of Collateral corresponding to the Agent Buffer requirement is transferred no later than the time set by LCH SA in a Notice.

LCH SA shall publish in an Instruction the method used to calculate the Agent Buffer requirements;

Article 4.4.0.10

An Agent Member's Agent Buffer may be applied by LCH SA towards the payment of:

- Margin required by LCH SA in connection with a Sponsored Member of such Agent Member, in connection with the Open Positions of one or more of its Sponsored Members;
- Contributions required from such Agent Member to LCH SA, in connection with the Open Positions of one or more of its Sponsored Members,

where such amounts have not or would not have been paid when due, in whole or in part, by such Sponsored Member or such Agent Member in connection with such Sponsored Member (as applicable).

For the avoidance of doubt, LCH SA is allowed to sell all or part of the Securities provided as Collateral and recorded on the relevant Agent Buffer Account, and to draw partial amounts from the relevant Agent Buffer Account as many times as needed.

Article 4.4.0.11

In the event of simultaneous shortfalls in relation to Margin due from a Sponsored Member and Contributions in connection with the same Sponsored Member, in each case in connection with the Open Positions attributed to a corresponding Agent Member, LCH SA will use such Agent Member's Agent Buffer in order to meet any such shortfall.

Article 4.4.0.12

LCH SA shall be entitled to apply the Agent Buffer to cover Margin obligations that have been called by LCH SA prior to a Sponsored Members' Event of Default but which have not been paid by its corresponding Agent Member.

Article 4.4.0.13

Any Agent Buffer that is applied by LCH SA to cover:

- required Margin, will form a part of the corresponding SM/AM Current Collateral Balance upon being recorded in the relevant SM/AM Account and/or upon LCH SA in its sole discretion determining that there are insufficient funds standing to the account of the Sponsored Member in the relevant SM/AM Account; and

- required Contributions, will form a part of the corresponding Default Fund upon being recorded in the relevant SM/AM Default Fund Account or applied in accordance with Article 4.5.2.7, as applicable.

Article 4.4.0.14

If there is a shortfall in the Agent Buffer as a result of LCH SA applying the Agent Buffer in accordance with this Section or a shortfall in the SM/AM Account resulting in a requirement to use Agent Buffer to cover the liabilities on the SM/AM Account, LCH SA will call Collateral (as determined by LCH SA acting in its discretion) from the Agent Member to restore the Agent Buffer at the level required by LCH SA in accordance with the Clearing Rules.

Article 4.4.0.15

In the event of a Paying Agent Resignation, LCH SA shall be entitled to apply a Resigning (Payment Services) Agent Member's Agent Buffer in accordance with the provisions of an Instruction.

C.2. Agent Resource Contribution

Article 4.4.0.16

An Agent Member is required to transfer Collateral to LCH SA in order to provide pre-funded financial resources to cover losses arising from any Event of Default of its Sponsored Members (in accordance with Article 4.4.0.19 below). The value of such Agent Resource Contribution shall be determined by LCH SA on the basis of the Contributions of the Agent Member in connection with the Open Positions of Sponsored Members attributed to such Agent Member in accordance with the Clearing Rules, shall be recorded by LCH SA as attributable to such Agent Member and shall be attributed to its ARC Account with LCH SA.

Any payments made by an Agent Member in respect of its Agent Resource Contribution obligations shall be delivered by transferring Collateral outright to LCH SA.

Article 4.4.0.17

Any Agent Resource Contribution required to be provided by an Agent Member must be provided no later than the time set by LCH SA in a Notice.

Article 4.4.0.18

LCH SA shall publish in an Instruction the method used to calculate the Agent Resource Contribution requirements.

Article 4.4.0.19

An Agent Member's Agent Resource Contribution may be applied by LCH SA following an Event of Default of any of its Sponsored Members, in accordance with Article 4.5.2.7. If an Event of Default occurs in relation to more than one Sponsored Member of the same Agent Member, the Agent Resource Contribution shall be applied towards the reduction of losses in accordance with Article 4.5.2.7 on a first to default basis. If an Event of Default occurs simultaneously in relation to more than one Sponsored Member of the same Agent Member, the Agent Resource Contribution shall be applied towards the reduction of losses in accordance with Article 4.5.2.7 *pro rata* between such Defaulting Sponsored Members, calculated as the proportion of such Agent Resource Contribution relative to the Open Positions of such Defaulting Sponsored Members attributed to such Agent Member (any amount not used in relation to one Defaulting Sponsored Member may be applied towards further reduction of the losses attributable to another Defaulting Sponsored Member).

For the avoidance of doubt, following an Event of Default, LCH SA is allowed to draw partial amounts from the relevant Agent Resource Contribution Account as many times as needed to cover the estimated losses incurred as a result of, following, or in connection with, such Event of Default.

Article 4.4.0.20

Any Agent Resource Contribution that is applied by LCH SA towards the reduction of losses in accordance with Article 4.5.2.7 will no longer constitute Agent Resource Contribution

Article 4.4.0.21

If there is a shortfall in the Agent Resource Contribution as a result of LCH SA applying the Agent Resource Contribution in accordance with this Section, LCH SA will call additional pre-funded resources from the Agent Member to restore the Agent Resource Contribution at the level required by LCH SA in accordance with the Clearing Rules provided that Agent Resource Contribution cannot be applied more than once by LCH SA with respect to the Event of Default of a Sponsored Member.

CHAPTER 5 - EVENT OF DEFAULT

Section 4.5.1 Notification of an Event of Default

Article 4.5.1.1

The occurrence of an Event of Default shall be notified by any means by LCH SA to the Defaulting Clearing Member and to its Agent Member, if any.

Article 4.5.1.2

If an event or circumstance which would otherwise constitute or give rise to a Contractual Event of Default also constitutes an Insolvency Event of Default, it will be treated as an Insolvency Event of Default.

Section 4.5.2 Measures in case of an Event of Default

Article 4.5.2.1

Upon the occurrence of an Event of Default, LCH SA may, in co-ordination with the relevant Competent Authority as the case may be, take any measure it deems necessary in order to contain its exposure and to mitigate overall market effects, whether or not these measures are set out in the Clearing Rules.

Article 4.5.2.2

Upon the occurrence of an Event of Default, LCH SA may discretionarily take any of the following measures or any other measures that it deems necessary or useful taking into account the need to act promptly in the manner LCH SA thinks best to contain its exposure and to mitigate resulting effects over market participants:

- (i) to request the relevant Market Undertaking to suspend any trading activity of the Defaulting Clearing Member ;
- (ii) to terminate or suspend the Admission Agreement entered into between LCH SA and the Defaulting Clearing Member ;
- (iii) to obtain any advice or assistance from the Defaulting Clearing Member and/or any third party (including its Agent Member, if any), as LCH SA may deem necessary for any matter arising out of or in connection with an Event of Default and at the expense of the Defaulting Clearing Member;
- (iv) to impose further Margin requirements and corresponding Collateral deposits to secure the performance by the Defaulting Clearing Member of its obligations under the Clearing Rules;
- (v) to sell off the Collateral posted by the Defaulting Clearing Member or to call on the Central Bank Guarantee, if applicable, to ensure the performance by the Defaulting Clearing Member of its obligations under the Clearing Rules ;
- (vi) to act in lieu of the Defaulting Clearing Member for performing its payment and/or delivery obligations;
- (vii) to impose upon the Defaulting Clearing Member a penalty for late delivery or payment, in the circumstances and at a rate set out in an Instruction ;
- (viii) to claim from the Defaulting Clearing Member damages and costs incurred in relation to the occurrence of an Event of Default or the processing of the Event of Default;
- (ix) to use all or part of the Agent Buffer to meet the Margin requirements of the Defaulting Sponsored Member and such Defaulting Sponsored Member's Agent Member's obligation to pay Contributions; and/or

- (x) where the Defaulting Clearing Member is also an Agent Member, to issue an Agent Close-out Notice in respect of such Defaulting Clearing Member for its activity as an Agent Member.

For the avoidance of doubt, termination or suspension of the Admission Agreement entered into between LCH SA and the Defaulting Clearing Member shall not release the Defaulting Clearing Member from any of its obligations under the Clearing Rules.

Article 4.5.2.3

The Defaulting Clearing Member (and its Agent Member, if any) shall respond to any requests as LCH SA may deem necessary for any matter arising out of, or in connection with, an Event of Default, and shall cooperate with LCH SA in order to process the Event of Default.

Article 4.5.2.4

If the Clearing Member appears to LCH SA to be unable, or to be likely to become unable, to meet its obligations in respect of one or more Transactions or otherwise under the Clearing Rules, LCH SA may, within its reasonable judgement, declare such event as a Contractual Event of Default.

LCH SA may take the view that a Contractual Event of Default has happened in light of the occurrence of, *inter alia*, any of the following events:

- (i) Failure to pay or deliver any or all balances, Financial Instruments, or assets owed to LCH SA in respect of Open Positions registered in the name of the Defaulting Clearing Member with LCH SA, within the stipulated deadlines ;
- (ii) Failure to pay any Margin, or any I Margin amounts called from the Replacement Services Provider in accordance with the Agent Close-out MP pursuant to an Instruction, or any other Margin imposed by LCH SA or failure to make a required contribution to the relevant Default Fund, within the stipulated time limits ;
- (iii) Non successful settling of Net Fails via a buy in or a sell-out procedure.
- (iv) In respect of a Sponsored Member, (i) the loss of its Agent Member (other than the Agent Member appointed to perform Back-up Agent Services and/or Back-up Paying Agent Services only), further to an Agent Close-out Event, the termination or suspension of the agreement between the Agent Member and the Sponsored Member or for any other reason whatsoever, and (ii) save in the case where the Sponsored Member elects to perform the Back-up Agent Services and/or Back-up Paying Agent Services for itself, the loss of its Agent Member appointed to perform Back-up Agent Services and/or Back-up Paying Agent Services only, further to an Agent Close-out Event or Paying Agent Resignation, the termination or suspension of the agreement between such Agent Member and the Sponsored Member or for any other reason whatsoever, subject to the provisions of Chapter 6 of this Title and of an Instruction.

Upon the occurrence of a Contractual Event of Default, and without prejudice to the provisions of Article 4.5.2.2, LCH SA and the Defaulting Clearing Member (and its Agent Member, if any) shall cooperate to try to reach a mutually satisfactory agreement in order to resolve the Contractual Event of Default.

If such an agreement is not reached or the Contractual Event of Default has not been resolved before the date and time limit set by LCH SA, LCH SA may, in its sole discretion, if it estimates that such measures are necessary as regards the need to act promptly, in accordance with French law and the provisions of an Instruction :

- (i) with respect to a Defaulting Clearing Member other than a Defaulting Sponsored Member, transfer to another Clearing Member (other than a Sponsored Member) the Client Open Positions registered in the name of the Defaulting Clearing Member, and/or
- (ii) liquidate the Open Positions registered in the name of the Defaulting Clearing Member.

provided that, if a Contractual Event of Default has happened solely by reason of the occurrence of an event set out in (iv) above, the liquidation of the Open Positions registered in the name of the Defaulting Clearing Member may be decided by LCH SA only if there is any shortfall relating to a call of LCH SA in

respect of (i) this Sponsored Member's Agent Member's obligation to pay Contributions and/or (ii) the Margin requirements of this Sponsored Member.

Article 4.5.2.5

Upon the occurrence of an Insolvency Event of Default, and without prejudice to the provisions of Article 4.5.2.2, LCH SA may in accordance with French law and the provisions of an Instruction:

- (i) transfer to another Clearing Member the Client Open Positions registered in the name of the Defaulting Clearing Member ; and/or
- (ii) liquidate the Open Positions registered in the name of the Defaulting Clearing Member.

Upon the occurrence of an Insolvency Event of Default, the rights and obligations of the Defaulting Clearing Member arising from or in connection with its participation to the clearing system operated by LCH SA shall be governed exclusively by French law, and the law of the State where insolvency proceedings are initiated against the Defaulting Clearing Member will not interfere in this respect.

Article 4.5.2.6

The default management process applicable to Transactions executed on, or reported by, Trading & Matching Platforms and the MTS Italy Regulated Market shall be set out in a default management process Instruction and the default management process applicable to Transactions in Securities and/or Derivatives Product Groups shall be set out in a transfer and liquidation Instruction.

Transfer and liquidation of Open Positions, as the case may be, shall be performed under conditions set out in an Instruction, taking into account on the one hand the need to act promptly in the manner LCH SA thinks best to contain its exposure and to mitigate overall market effects and on the other hand, the Account Structure of the Defaulting Clearing Member.

Clearing Members are required to provide their Clients, at the beginning of their relationship, with information regarding (i) their Account Structure and (ii) the consequences of such Account Structure in case of an Event of Default as described in an Instruction.

Article 4.5.2.7

In order to perform its obligations pursuant to the Clearing Rules, LCH SA will make use of the resources available to it in the following order:

- (i) (a) any Collateral deposited by the Defaulting Clearing Member (including, for a Defaulting Sponsored Member, any Collateral posted by the Agent Member to whom Transactions of the Defaulting Sponsored Member have been attributed, registered in the Agent Buffer Account of the relevant Agent Member and used by LCH SA to cover any shortfall in Margin in connection with Transactions of its Sponsored Members for which it is the Agent Member pursuant to Articles 4.4.0.8 *et seq.*) to meet its Margin requirements, including any additional Margin requirement, in respect of the Clearing Service concerned;

(b) any Collateral, transferred or granted by the Defaulting Clearing Member to LCH SA as margin cover in connection with (an)other clearing service(s) provided by LCH SA (to the extent such collateral is not applied in the context of such other clearing service(s) in accordance with the rules applicable to such other clearing service(s));

provided in each case that in no circumstances will collateral transferred by the Defaulting Clearing Member in respect of obligations arising in a Client Account Structure be applied by LCH SA pursuant to this stage (i) in respect of any loss attributable to any other Account Structure of the Defaulting Clearing Member;

- (ii) if applicable any other Collateral or any surplus assets deposited by the Defaulting Clearing Member or Letter of Credit issued by, or with regard to, the Defaulting Clearing Member in favour of LCH SA. Such surplus assets will be allocated to cover the losses on (a) Transactions on Fixed Income Securities, (b) Transactions relating to Securities and/or Derivatives Product Groups (excluding MTS Italy), (c) Triparty Repo Transactions, on a pro rata basis, based on the excess losses (losses not covered by (i)(a) and (i)(b) incurred respectively in these Clearing Services, provided in each case that in no circumstances will collateral or surplus assets

transferred by the Defaulting Clearing Member, or Letters of Credit issued by or with regard to the Defaulting Clearing Member, in respect of obligations arising in a Client Account Structure be applied by LCH SA pursuant to this stage (ii) in respect of any loss attributable to any other Account Structure of the Defaulting Clearing Member;

- (iii) (a) for a Defaulting Clearing Member other than a Defaulting Sponsored Member, the individual contribution to the relevant Default Fund of the Defaulting Clearing Member (where applicable, any excess will be used to cover losses resulting from other clearing services, prorata to the amount of the losses resulting respectively from such other clearing services), and, if applicable any Collateral transferred or granted by the Defaulting Clearing Member to LCH SA as a contribution to the relevant Default Fund relating to (an)other clearing service(s) (including for the avoidance of doubt the CDS clearing service) (to the extent such Collateral is not applied in the context of such other clearing service(s) in accordance with the rules applicable to such other clearing service(s)); or
- (b) for a Defaulting Sponsored Member, the contribution to the relevant Default Fund posted by the Agent Member in connection with the Open Positions of such Defaulting Sponsored Member and registered in the relevant SM/AM Default Fund Account (including any Collateral posted by the Agent Member to whom Transactions of the Defaulting Sponsored Member have been attributed, registered in the Agent Buffer Account of the relevant Agent Member and used by LCH SA to cover any shortfall in Contributions in connection with Transactions of its Sponsored Members for which it is the Agent Member pursuant to Articles 4.4.0.8 *et seq.*) in respect of the Clearing Service to which the loss relates (where applicable, any excess will be used to cover losses resulting from other clearing services, prorata to the amount of the losses resulting respectively from such other clearing services), and, if applicable any Collateral posted by the Agent Member in connection with the Open Positions of such Defaulting Sponsored Member and registered in the relevant SM/AM Default Fund Account as a contribution to the relevant Default Fund relating to (an)other clearing service(s) (to the extent such Collateral is not applied in the context of such other clearing service(s) in accordance with the rules applicable to such other clearing service(s));
- (iv) for any Defaulting Sponsored Member, any Collateral posted by the Agent Member to whom Transactions of the Defaulting Sponsored Member have been attributed, registered in the Agent Resource Contribution Account of the relevant Agent Member;
- (v) payment from LCH SA's dedicated own resources in accordance with Article 45.4 of EMIR and Article 35 of Commission Delegated Regulation (EU) N° 152/2013 with regard to regulatory technical standards on requirements for central counterparties, as determined from time to time in a Notice, of an amount up to the amount of such dedicated own resources allocated to the relevant default fund (including each of the Default Funds and any other default fund set- up by LCH in relation any other clearing activity) in proportion to the size of such default fund (the "**Capped Amount**"). In the case of an Event of Default occurring after a previous Event of Default but before LCH SA has reinstated such dedicated own resources in accordance with Article 35 of Commission Delegated Regulation (EU) N° 152/2013, an amount up to the residual amount of such dedicated own resources in the relevant Default Fund,
- (vi) (a) the available contributions to the relevant Default Fund made by the other Clearing Members-as per Article 4.3.1.1 (and, for non-Defaulting Sponsored Members, by their Agent Members as per Article 4.3.1.2) any Refill Contributions deposited as per Article 4.3.3.1, prorata to such other Clearing Member's and Agent Member's share in the contributions of non-Defaulting Clearing Members (and, for non-Defaulting Sponsored Members, of their Agent Members) to the relevant Default Fund immediately prior to the Event of Default;
- (b) the Service Continuity Contributions made by non-defaulting Clearing Members (and, for non-Defaulting Sponsored Members, by their Agent Members) in respect of the Clearing Service concerned pursuant to Article 4.3.3.2 ;
- (c) any voluntary payments made by non-Defaulting Clearing Members (and, for non-Defaulting Sponsored Members, by their Agent Members) in respect of the Clearing Service concerned; and

(d) the Service Closure Payments to be made in respect of the Clearing Service concerned pursuant to Article 4.3.3.3 and to the Instruction mentioned therein (as defined by such Instruction).

If some Collateral deposited by other Clearing Members (and, for non-Defaulting Sponsored Members, by their Agent Members) to contribute to the relevant Default Fund is used, or if a payment is made pursuant to item 4 (v) above, the amount of this Collateral or payment will represent a claim of LCH SA against the Defaulting Clearing Member.

Article 4.5.2.8

Following the liquidation of Client Open Positions at Margin Account level and of Client Collateral at Collateral Account level, as a result of the Event of Default of a Clearing Member, LCH SA shall deduct from the proceeds resulting from the liquidation of such Client Collateral any losses realised following such liquidation, and shall determine a final net balance in relation to each Client or Client Account Structure, as applicable.

Such Client final net balance shall be deemed positive where LCH SA owes monies to the Defaulting Clearing Member and negative where the Defaulting Clearing Member owes monies to LCH SA.

Any positive Client net balance calculated by LCH SA in accordance with the above provisions shall be remitted to the Client if such Client is a Known Client, is the sole holder of the relevant Position Account(s), and if such Position Account(s) is/are the sole Position Account(s) linked to the relevant Margin Account and in all other cases, to the Defaulting Clearing Member for the account of such Client(s). Any negative Client net balance calculated by LCH SA in accordance with the above provisions shall be considered a debt of the Defaulting Clearing Member towards LCH SA and shall be discharged using the resources available pursuant to Article 4.5.2.7, in the order mentioned therein.

Following (i) completion of the default management process and (ii) the extinction of any exposures relating to the Defaulting Clearing Member, and taking into account:

(a) any monies that may be owed by the Defaulting Clearing Member to LCH SA pursuant to the Clearing Rules and the Admission Agreement (including for the avoidance of doubt, any losses, costs and expenses of whatsoever nature incurred by LCH SA in connection with the Event of Default and any Client negative net balance determined pursuant to the provisions above) and

(b) any monies that may be owed by LCH SA to the Defaulting Clearing Member pursuant to said Clearing Rules and Admission Agreement (with the exception of (i) any Client positive net balance owed by LCH SA to the Defaulting Clearing Member pursuant to the provisions above, and (ii) if the Defaulting Clearing Member has also been admitted as an Agent Member, of any Collateral which has been recorded on any Agent Collateral Account opened in its name and which LCH SA has applied or will be required to apply in order to reduce its loss in accordance with Article 4.5.2.7, or is entitled to retain and use pursuant to the provisions of an Instruction.

LCH SA shall determine a Defaulting Clearing Member final net balance, which shall be deemed positive where LCH SA owes monies to the Defaulting Clearing Member and negative where the Defaulting Clearing Member owes monies to LCH SA.

If positive, such Defaulting Clearing Member final net balance shall be remitted to the Defaulting Clearing Member and, if negative, shall be claimed by LCH SA from the Defaulting Clearing Member (subject to the application of any time bar requiring the filing of a provisional claim in the case of an Insolvency Event of Default). Any amounts finally recovered by LCH SA following such claim will be refunded to the non defaulting Clearing Members prorata to their respective contribution to the losses incurred in connection with the default management process, and if there is any surplus following such refund, will be applied towards the reimbursement or discharge of any monies paid or costs incurred by LCH SA in connection with the Event of Default.

Article 4.5.2.9

In case of an Event of Default, LCH SA is not bound by the buy-in procedure timeframe as set out in an Instruction.

Article 4.5.2.10

When the Defaulting Clearing Member is a seller in a Forward Repo transaction, the non-Defaulting Clearing Member does not receive the Securities, does not pay the related cash amount and only receives the payment of the interest amount related to the Forward Repo for which the intended Settlement Date of the Return Transaction does not exceed four (4) Clearing Days after the declaration of the default. However, LCH SA can extend this timeframe as it deems necessary until the liquidation process is settled.

Article 4.5.2.11

Measures taken by LCH SA upon the occurrence of an Event of Default shall be notified by LCH SA to the Defaulting Clearing Member and to any appropriate third parties (including its Agent Member, if any) as LCH SA may deem necessary.

Section 4.5.3 Provisions Applicable on Euronext Paris

Article 4.5.3.1

A Client-acting on Derivative Markets fails when it does not pay Initial Margin, debit Variation Margin, or premiums within the stipulated deadlines.

In such case, the Clearing Member automatically liquidates all or part of the failing Client's Positions.

Article 4.5.3.2

In the event that a Client fails on deliverable Financial Instruments at settlement, the Clearing Member which manages the Client's Positions ensures execution under the guarantee of final settlement under the conditions specified in an Instruction.

The Clearing Member shall retain the failing Client's collateral. All expenses incurred by the Clearing Member to process the failed Transaction are charged against the failing Client's collateral. The remaining balance of the Initial Margin is refunded after the Clearing Member has discharged its obligations.

Section 4.5.4 Events of Default of an Allied Clearing House and Consequences on Clearing Members

Article 4.5.4.0

For the purpose of this Section, Allied Clearing House shall mean Cassa di Compensazione e Garanzia.

Article 4.5.4.1

Upon the occurrence of an Event of Default of the Allied Clearing House (an “**Allied Clearing House Event of Default**”), LCH SA will promptly notify the Clearing Members (and their Agent Members, if any) active in fixed income Transactions in Italian government Securities (“**Italian Fixed Income Transactions**”) and will, with immediate effect, stop accepting from the Allied Clearing House and from any Clearing Member, directly or indirectly, including through its Agent Member (if any), and will no longer novate, any new Italian Fixed Income Transactions for clearing or registration in its Fixed Income Clearing System, and may, in co-ordination with the relevant Competent Authority as the case may be, take any measure it deems necessary concerning the interoperability link with the Allied Clearing House in order to contain its exposure and to mitigate overall market effects (including selling any Securities purchased from Clearing Members and which cannot be delivered to the Allied Clearing House due to the Allied Clearing House Event of Default), whether or not these measures are set out in the Clearing Rules.

Article 4.5.4.2

LCH SA may, in particular, in its sole discretion, take any of the following measures or any other measures that it deems necessary or useful taking into account the need to act promptly in the manner LCH SA thinks best to contain its exposure and to mitigate resulting effects over market participants:

- (i) obtain any advice or assistance from any third party, as LCH SA may deem necessary for any matter arising out of or in connection with the Allied Clearing House Event of Default,
- (ii) sell any Securities delivered by Clearing Members to LCH SA in connection with Italian Fixed Income Transactions and associated Trade Legs and/or Open Positions involving the Allied Clearing House and which have not been delivered to the Allied Clearing House due to the Allied Clearing House Event of Default,
- (iii) cancel, to the extent possible, any settlement instructions in relation to Italian Fixed Income Transactions and associated Trade Legs and/or Open Positions which have not yet settled and instruct any CSD of Reference or ICSD and securities settlement system, directly or indirectly to cancel such pending instructions and to stop issuing any new instructions in relation thereto.

Article 4.5.4.3

All outstanding Trade Legs and/or Open Positions of the Allied Clearing House and Clearing Members resulting from Italian Fixed Income Transactions already executed or registered shall be closed out as of the date of notification of an Allied Clearing House Event of Default.

For each Clearing Member active in Italian Fixed Income Transactions, LCH SA will set the close out value (positive or negative) for each outstanding Trade Leg and/or Open Position acting in a commercially reasonable manner. LCH SA will subsequently determine the difference between such close-out value and the value of the Trade Leg and/or Open Position as at the last Margin call paid by the Allied Clearing House. For each Trade Leg and/or Open Position, such difference shall be considered positive if it is in favor of the Clearing Member, and negative if it is in favor of LCH SA.

LCH SA will then calculate the algebraic sum of all such differences in respect of each Clearing Member active in Italian Fixed Income Transactions. The result shall be referred to as a "Clearing Member Negative Amount" if the Clearing Member owes money to LCH SA and a "Clearing Member Positive Amount" if LCH SA owes money to the Clearing Member.

Any Clearing Member Negative Amount shall be paid immediately to LCH SA by the relevant Clearing Members.

Article 4.5.4.4

A. Calculation of Allied Clearing House Default Balance Amount

LCH SA will then determine the amount resulting from:

(A) the sum of

- (i) The Initial Margin and additional Margin provided by the Allied Clearing House
- (ii) All Clearing Member Negative Amounts effectively paid to LCH SA

less

(B) the sum of

- (i) any losses arising from the sale by LCH SA of any Securities delivered by Clearing Members to LCH SA in connection with Italian Fixed Income Transactions involving the Allied Clearing House and which have not been delivered to the Allied Clearing House due to the Allied Clearing House Event of Default,
- (ii) any reasonable costs resulting from the management by LCH SA of the Allied Clearing House Event of Default,

(the result being the "**Allied Clearing House Default Balance Amount**").

B. Allocation of losses

If the Allied Clearing House Default Balance Amount is negative, no payment of Clearing Member Positive Amount will be made by LCH SA, and the remaining loss will be allocated between all fixed income Clearing Members having outstanding Italian Fixed Income Transactions on the date of the Allied Clearing House Event of Default (“**Clearing Members Active on Italian Fixed Income Transactions**”) (provided they are not Defaulting Clearing Members), pro rata to the ratio of their respective Initial Margin attributable to Italian Fixed Income Transactions immediately prior to the Allied Clearing House Event of Default compared to the aggregate Initial Margin attributable to Italian Fixed Income Transactions of all Clearing Members Active on Italian Fixed Income Transactions immediately prior to the Allied Clearing House Event of Default, and such amount will be payable immediately by such Clearing Members Active on Italian Fixed Income Transactions to LCH SA.

C. Payment of Clearing Member Positive Amounts

If the Allied Clearing House Default Balance Amount is positive, LCH SA will:

- (a) If the Allied Clearing House Default Balance Amount is positive and is sufficient to cover payment by LCH SA of the Clearing Member Positive Amounts in full, such payment will be made by LCH SA in full, in the manner set out below.
- (b) If the Allied Clearing House Default Balance Amount is positive but is not sufficient to cover payment by LCH SA of the Clearing Member Positive Amounts in full, such payment will be made by LCH SA partially only, pro rata to the proportion which, for each Clearing Member, (i) the Allied Clearing House Default Balance Amount multiplied by the relevant Clearing Member Positive Amount bears to (ii) the sum of all Clearing Member Positive Amounts, in the manner set out below.

Following return by the Allied Clearing House of the initial and additional margin provided to it by LCH SA (the “**Returned Margin Amounts**”), as and when such Returned Margin Amounts are received, LCH SA shall pay to the Clearing Members Active on Italian Fixed Income Transactions concerned, the amounts mentioned in (a) and (b) above.

Upon closing of the Allied Clearing House insolvency proceedings, LCH SA will pay to the Clearing Members Active on Italian Fixed Income Transactions concerned, any Clearing Member Positive Amount balance outstanding, if applicable, as per (a) and (b) above.

Article 4.5.4.5

LCH SA will also determine, for each Clearing Member active in Italian Fixed Income Transactions, the difference between the value of each Trade Leg and/or Open Position as at the last Margin call paid by the Allied Clearing House and the initial value of such Trade Leg and/or Open Position (based on the initial trading price of each such outstanding Trade Leg and/or Open Position). For each Trade Leg and/or Open Position, such difference shall be considered positive if it is in favour of the Clearing Member, and negative if it is in favour of LCH SA. LCH SA will then calculate the algebraic sum of all such differences in respect of each Clearing Member active in Italian Fixed Income Transactions, which will be considered a “**Net Realised Loss**” if the sum is negative and a “**Net Realised Gain**” if the sum is positive.

LCH SA will deduct any Net Realised Loss or add any Net Realised Gain resulting from the above calculation from/to the Margin to be returned to the Clearing Member.

Article 4.5.4.6

For the avoidance of doubt, the management by LCH SA of the Allied Clearing House Event of Default as set out above shall not impact the continuing operation of the Fixed Income Clearing System otherwise than in relation to Italian Fixed Income Transactions.

CHAPTER 6 - AGENT CLOSE-OUT MP

Section 4.6.1 Scope and Interpretation

Article 4.6.1.1

LCH SA has established an Agent Close-out MP which will apply in determining whether an Agent Close-out Event has occurred, and the consequences of such event on the Affected Agent Member and Affected Sponsored Members.

Article 4.6.1.2

The provisions of this Chapter are at all times and for all purposes without prejudice to the rights of LCH SA under the Clearing Rules, including without limitation the right of LCH SA to take any measures that LCH SA deems necessary or useful, in co-ordination with the relevant Competent Authority as the case may be, taking into account the need to act promptly in the manner LCH SA thinks best to contain its exposure and to mitigate resulting effects over market participants.

Article 4.6.1.3

The provisions of this Chapter are further detailed and supplemented by an Instruction on the Agent Close-out MP.

Section 4.6.2 Agent Close-out Event**Article 4.6.2.1**

In the event of an Agent Member appearing to LCH SA to be unable, or to be likely to become unable, to meet its obligations in connection with one or more Open Positions of any of its Sponsored Members, and without prejudice to Article 4.6.2.3 below, LCH SA and the relevant Agent Member shall cooperate to try to reach promptly a mutually satisfactory solution in order to resolve the situation.

If such an agreement is not reached and/or the situation is not resolved before the date and time limit set by LCH SA, LCH SA may, in its sole discretion, if it estimates that such measures are necessary as regards the need to act promptly, in accordance with French law, take the steps listed in Articles 4.6.2.4 et seq. and in an Instruction, it deems appropriate in the circumstances.

Article 4.6.2.2

Without prejudice to the generality of Article 4.6.2.1 above, LCH SA may take any or all of the events under paragraphs (i) to (iii) below, to show that an Agent Member is or is likely to become unable to meet its obligations in connection with one or more Open Positions attributed to it:

- (i) the Agent Member fails duly to perform its obligations under or is otherwise in breach of the Clearing Rules, or any of the terms of any agreement, understanding or arrangement with LCH SA;
- (ii) the Agent Member is in breach of the terms of membership of, or is declared to be in default by, or is suspended or expelled from membership of, any Regulated Market, MTF, other trading venue (including any Trading & Matching Platform) or clearing house;
- (iii) the Agent Member is in default in the payment of any sum whatsoever (including payment of Collateral) due and payable to LCH SA;

Article 4.6.2.3

Notwithstanding Article 4.6.2.1 above, in the case where the Agent Member is subject to an Insolvency Proceeding, or on the basis of publicly available information, is likely to become subject to an Insolvency Proceeding;

LCH SA shall be entitled, in its sole discretion and without having to consult with the Agent Member, to take the steps listed in Articles 4.6.2.4 et seq. and Section 4.6.3 below.

Article 4.6.2.4

On or as soon as practicable after (i) LCH SA having determined that no agreement has been reached and/or that the situation has not been resolved before the relevant date and time limit pursuant to Article 4.6.2.1 above, or (ii) the occurrence of any of the circumstances mentioned in Article 4.6.2.3 above in

relation to an Agent Member, LCH SA shall be entitled to take any measure it deems necessary in the circumstances, including those set out in an Instruction.

Article 4.6.2.5

The Affected Agent Member, the relevant Replacement Services Provider and the Affected Sponsored Members shall all cooperate with LCH SA and respond to any request as LCH SA may deem necessary for any matter arising out of, or in connection with, an Agent Close-out Event, and shall cooperate with LCH SA in relation to the Agent Close-out Event.

Article 4.6.2.6

Following the expiry of the Agent Close-out MP Window, LCH SA may exercise its rights under the Clearing Rules, including without limitation its right to issue a notice of default in accordance with Article 4.5.1.1 with respect to the Affected Portfolio of the Affected Sponsored Member where the Agent Close-out MP has not been completed.

Article 4.6.2.7

Upon the opening of an Insolvency Proceeding against the Agent Member, the rights and obligations of the Affected Agent Member arising from or in connection with its participation to the clearing system operated by LCH SA shall be governed exclusively by French law, and the law of the State where Insolvency Proceedings are initiated against the Affected Agent Member will not interfere in this respect.

TITLE V – TRIPARTY REPO CLEARING SERVICES

The provisions below set out the specific rules applying to the Clearing Services provided by LCH SA in relation to Triparty Repos through the Triparty Repo Clearing System. As a consequence, in the case of any discrepancy between those specific provisions and any other provision in the Clearing Rule Book, the former will prevail regarding Triparty Repo Transactions. For the avoidance of doubt, provisions of this Clearing Rule Book applying specifically to the Securities and Derivatives Product Group shall not apply to the Baskets Product Group.

CHAPTER 1 – GENERAL PROVISIONS AND LEGAL FRAMEWORK

Article 5.1.1.1

In addition to the obligations set out in Title II, Chapter 2, Section 2.3.3, Clearing Members wishing to clear Triparty Repo Transactions are required to comply with the following obligations:

Article 5.1.1.2

Each Clearing Member must:

- (i) Identify Euroclear Bank or the relevant ESES central securities depository as the triparty agent for its Triparty Repos entered into pursuant to this Clearing Rule Book;
- (ii) Save for Special Clearing Members, comply with the LCH SA Minimum Deposit requirement and the Triparty Repo Default Fund contribution requirement prior to submitting a Triparty Repo Transaction for clearing, as set out in an Instruction;
- (iii) Have previously entered into appropriate arrangements with respect to the Euroclear Collateral Management System and the relevant Euroclear Interoperability Agreements and comply with them at all times.
- (iv) Have entered into appropriate arrangements with Euroclear Bank to set up a credit line in order to secure Triparty Repo linked payments in the Euroclear Bank securities settlement system and to allow self collateralisation;
- (v) As an alternative to (iv) above, have obtained an authorisation to enter into auto-collateralisation operations with the Banque de France in order to secure Triparty Repo linked payments in Euroclear France securities settlement system ;
- (vi) Have granted LCH SA a power of attorney entitling LCH SA to generate collateral management instructions in Euroclear Collateral Management System (CMS) on behalf of the Clearing Member;
- (vii) Have expressly authorised in writing Euroclear Bank and/or Euroclear France to inform LCH SA of any withdrawal, transfer or assignment by itself in any way whatsoever (as security or otherwise) outside the Euroclear Collateral Management System of any Securities which have been allocated as collateral to a Triparty Repo entered into pursuant to this Clearing Rule Book.

CHAPTER 2 – CLEARING OPERATIONS

Section 5.2.1 Registration

Article 5.2.1.1

Upon registration by LCH SA, Triparty Repo Transactions governed by a national or international master agreement become immediately subject to the Clearing Rules, which override the provisions of such master agreement.

Article 5.2.1.2

On the basis of the registered Transactions, LCH SA calculates an Open Position per Clearing Member per Delivery Account, per Basket and per Settlement Date.

Section 5.2.2 Account Structure

Article 5.2.2.1.

The Triparty Repo Transactions registered by LCH SA are aggregated into one Net Position Exposure per Clearing Member and per Basket, in accordance with the appropriate settlement window (same Clearing Day settlement or following Clearing Day settlement).

The Net Position Exposure for same Clearing Day settlement is calculated as follows:

Triparty Repo Transactions already initiated and not yet returned + Triparty Repo Transactions with initiation date S (where S is the current Clearing Day).

The Net Position Exposure for following Clearing Day settlement is calculated as follows:

Triparty Repo Transactions already initiated and not yet returned + Triparty Repo Transactions with initiation date S+1 (where S is the current Clearing Day) – Triparty Repo Transactions with return date S+1.

Section 5.2.3 Settlement and Delivery

Article 5.2.3.1

Contrary to the general clearing rules stated in Article 1.3.1.4, LCH does not transmit settlement instructions regarding Triparty Repos to the CSD of Reference.

LCH SA sends the Net Position Exposure of each Clearing Member when modified, twice a day, to Euroclear Collateral Management System for automatic allocation of collateralising Securities.

Article 5.2.3.2

Euroclear Collateral Management System is responsible for sending the appropriate settlement Instructions to the CSD of Reference, pursuant to its rules.

Under no circumstances may LCH SA be held liable for any direct or consequential loss suffered by a Clearing Member and due to Euroclear Collateral Management System allocation and settlement procedures.

Article 5.2.3.3

The provisions of Section 3.4.3 do not apply to Triparty Repos.

In the event that CMS cannot allocate sufficient eligible Securities to settle a Triparty Repo Transaction in whole (an “allocation fail”), such Triparty Repo Transaction shall be settled partially only prorata to the amount of eligible Securities available in the Collateral Giver’s account. The Collateral Taker’s account shall be debited by a cash amount corresponding to the reduced securities amount, but the Collateral Giver shall pay interest to the Collateral Giver on the full amount of the Triparty Repo Transaction as initially traded, as if the Triparty Repo Transaction had been settled in full.

Article 5.2.3.4

In any of the following events:

- (i) the Net Position Exposure of a Clearing Member is such that Securities allocated as collateral to Triparty Repo Transactions need to be returned to the Cash Borrower ;
- (ii) the value of Securities allocated as collateral to Triparty Repo Transactions has increased such that some of these Securities need to be returned to the Cash Borrower ;
- (iii) a Cash Borrower wishes to substitute Securities allocated as collateral to Triparty Repo Transactions ;
- (iv) Euroclear Collateral Management System needs to proceed with a substitution of Securities allocated as collateral to Triparty Repo Transactions pursuant to the Clearing Rules (eligibility criteria for Triparty Repos); or
- (v) Securities allocated as collateral to Triparty Repo Transactions need to be returned to the Cash Borrower at the maturity of a Triparty Repo Transaction ;

if on the second Clearing Day following the day on which the Securities concerned must be returned or substituted, such return or substitution has not taken place due to the fact that the Securities to be so returned or substituted are no longer available in the Euroclear Collateral Management System environment (including as a consequence of a Settlement Agent default), LCH SA will apply cash settlement in order to debit the Cash Lender's account and credit the Cash Borrower's account by an amount calculated on such second Clearing Day pursuant to a formula to be set out in a Notice.

Section 5.2.4 Corporate Events

Article 5.2.4.1

Corporate events occurring on the collateralising Securities follow Euroclear Collateral Management System's rules and are managed by the CMS accordingly.

Article 5.2.4.2

In the specific case of an Event of Default, corporate events are managed as set out in an Instruction.

CHAPTER 3 – RISK MANAGEMENT

Section 5.3.1 Margin Requirements

Article 5.3.1.1

Article 4.2.0.8 shall not apply to Triparty Repos.

Article 5.3.1.2

Save for Special Clearing Members, LCH SA shall calculate and call Triparty Repo Interest Margin on Transactions executed on or reported by Trading & Matching Platforms, and on the Net Position Exposure and collateralising Securities portfolio for other Margin obligations, as specified in an Instruction.

Section 5.3.2 Event of Default

Article 5.3.2.1

Where eligible Securities have been allocated as collateral to Triparty Repos pursuant to this Clearing Rule Book, the withdrawal, transfer or assignment by a Clearing Member in any way whatsoever (as security or otherwise) of such Securities outside the Euroclear Collateral Management System may, at LCH SA's sole discretion, constitute a Contractual Event of Default in accordance with article 4.5.2.4. or in respect of a Clearing Member admitted as a Special Clearing Member, a Special Clearing Member Event in accordance with Article 2.5.4.1(i) of the Clearing Rule Book.