
LCH SA
Clearing Rule Book

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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 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 to LCH SA, as communicated by LCH SA.

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.

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.

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

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: 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.

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 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 Clearnet 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 specified in an Instruction, pledged, granted or transferred outright to LCH SA, in order to secure the performance of the Clearing Member's obligations. Any surplus of Security, cash or central bank guarantee registered in a Collateral Account is deemed to be Collateral.

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

Commodities Dealer: 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, and as from 1 January 2014 the CRR or of Emir.

Contractual Event of Default: The 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. 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.

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 the Clearing Member or a third party, duly authorised by the central bank, whereby, the 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 Directive 2006/48/EC of the European Parliament and of the Council of June 14th, 2006 relating to the taking up and pursuit of the business of credit institutions, and as from 1 January 2014 by 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 juin 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 that is subject to an Event of Default, and in respect of whom LCH SA has issued a notice of default, in accordance with Article 4.5.1.1.

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 toezicht op 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.

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 Clearnet.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 Basket 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 Default Fund of such Clearing 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 Derivative Product Groups or for Baskets, 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 or Allied Clearing House being subject to an Insolvency Proceeding, or (ii) on the basis of publicly available information, the Clearing Member being likely to become subject to an Insolvency Proceeding. 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:

- (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 generally or upon any category of Clearing 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 MIFID.

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..

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, Intraday Margins, Cash Interest and Loan Fee Margin 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.

MiFID: Directive 2004/39/EC of the European Parliament and of the Council of April 21st, 2004 on markets in financial instruments, as amended.

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 which brings together multiple third-parties buying and selling interests in financial instruments – in the system and in accordance with non-discretionary rules – in a way that results in a contract, in accordance with Article 4 of MIFID.

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 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 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

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

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 generally, or a particular category of Clearing 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. 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.

Participant: A legal person admitted, either as a Clearing 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.

Payment Agent: A third party which holds a cash account with a central bank and/or 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.

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 its 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

Regulated Market: Any organised market for Financial Instruments specified as such in the list published by the European Commission in accordance with Article 4 of MiFID.

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.

Return Transaction:

In the framework of a Repo, a transaction in respect 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 May 19, 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.

Systems and Operations: All parts and components of the technical system of the Clearing Member, including hardware and software that is operated and maintained by or on behalf of a Clearing Member to clear Transactions 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: means 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, the single, net positive or negative amount, 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 Article 1.4.1.1 to 1.4.1.13.

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 are concluded neither on a Regulated Market nor on a MTF and 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, this Margin is 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, to cover the negotiation risk and which is based on the daily revaluation of the Settlement Price of Clearing Member's Open Positions on futures contracts.

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.

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. Clearing 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.

Prior to implementing any material changes, LCH SA shall consult with all affected Clearing Members, following the consultation process set-out in an Instruction.

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 generally or of any category of Clearing Members, then any Clearing 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 or to the relevant category of Clearing Members through dissemination via posting on its website, or individual notification as appropriate.

Article 1.2.4.2

Except cases of emergency, such provisions shall become effective and binding on all Clearing 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 shall pay to LCH SA 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 this Clearing Rule Book 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 by Clearing Members 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 1.3.1.4

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 1.3.1.5

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 1.3.1.6

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 and 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 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 and 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.

Article 1.3.1.7

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

Article 1.3.1.8

Any Transaction that does not comply with all the criteria mentioned in Article 1.3.1.6 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 1.3.1.9

Without prejudice to Article 1.3.1.8 above, LCH SA may accept to register Transactions in Securities which do not comply with the criteria listed in Article 1.3.1.6 as long as they are admitted for settlement by at least one of the CSDs 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 or ICSD or make available to Clearing Members the relevant information in respect of such settlement.

Article 1.3.1.10

In the event Financial Instruments or Transactions which were previously eligible for novation pursuant to Article 1.3.1.6 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 1.3.1.6 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, pursuant to Article 1.3.2.1 is deemed irrevocable in the sense of Article L 330 1 § III of the Financial and Monetary 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 of Transactions complying with the criteria mentioned in Article 1.3.1.6 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 Financial Instruments versus payment.
- 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. 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 Securities, into Open Positions.

Article 1.3.2.12

Unless otherwise specified in the Clearing Rule Book, LCH SA sends the requisite delivery and 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 Products 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 as 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

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 default 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.

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.

B. Liability of LCH SA

Article 1.3.3.4

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 1.3.3.5

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 1.3.3.6

For obligations other than the obligation to deliver Securities or pay cash amounts as referred to in Article 1.3.3.4 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 1.3.3.7

LCH SA may under no circumstances be held liable for direct or consequential loss suffered by any Clearing Member including without limitation loss of business, profits or revenues believed by the Clearing 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 1.3.3.8

If a Clearing Member does not comply with its 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 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 in question, notwithstanding implementation of the measures provided in Chapter 5 of Title IV of the Clearing Rule Book. In particular, following an Event of Default, 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, implementation of measures provided in Chapter 5 of Title IV cannot result in any liability for LCH SA (a) in respect of the failing Clearing Member, including in connection with (i) process and conditions for liquidating Trade legs or Open Positions or (ii) the selling or liquidation of Margins or any other Collateral and (b) in respect of the Defaulting Clearing Member and non-defaulting Clearing Members regarding the triggering of any call on the Default Fund.

Article 1.3.3.9

Furthermore, LCH SA may not be held liable for any breach by a Clearing 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 irrespective of such account beneficiary.

Article 1.3.3.10

LCH SA may 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 1.3.3.11

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 1.3.3.12

Force majeure is to be constructed 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, 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 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 a Clearing Member or its Clients or a 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.

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 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 shall, in accordance with Article 1.3.3.4 *et seq.*, notify LCH SA of any claim within twelve (12) months from the Clearing Day on which the Clearing 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 Chapter 5, LCH SA fails to make a payment due by LCH SA to a Clearing Member (other than to a Defaulting Clearing Member) under any novated Transaction, and such failure has not been cured within 30 days from the date when the obligation to pay falls due; or
- (ii) LCH SA becomes subject to LCH Insolvency Proceedings duly notified by the French prudential control authority (*Autorité de contrôle prudentiel*) pursuant to article R.613-18 of the Financial and Monetary 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 Clearnet 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 Clearnet 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 Article 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 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 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.

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 (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 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 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 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 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 Position 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 LCH SA of the House Termination Amount and 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

For the purposes of any calculation required to be made under this Chapter 4, the Clearing 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 1.4.1.12

The Clearing 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 may have.

Article 1.4.1.13

This Chapter 4 shall be without prejudice to the rights that LCH SA may have pursuant to the Clearing Rules against any Clearing 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 et de Résolution or a court decision which forces LCH 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 describe in an Instruction).

TITLE II – MEMBERSHIP

Article 2.0.0.1

Clearing Members shall at all time comply with the requirements set out in this Chapter and any additional conditions and limitations imposed upon admission and with any provision of the Clearing Rules.

Article 2.0.0.2

The provisions of this Title which are applicable to the Clearing Members' clearing Transactions carried out either on a Regulated Market or on a MTF may be extended by LCH SA to the Clearing Members' clearing Transactions in Financial Instruments executed on a market which has neither the status of a Regulated Market, nor 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 and its Allied Clearing Houses. It does not have indirect participants.

A. Clearing Members

Article 2.1.1.2

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 object is the clearing of Financial Instruments;
5. Subject to conditions set out in the general regulations of the Autorité des Marchés Financiers (AMF), Credit Institutions and Investment Firms other than those mentioned in 1 and 2 above and legal persons whose principal or sole object 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;
7. Central banks.

Article 2.1.1.3

A Clearing Member is a legal person 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 as:

- (i) an Individual Clearing Member; or
- (ii) a General Clearing Member.

A. 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 that, 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.

Section 2.1.2 Application Procedure**Article 2.1.2.1**

Subject to the 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 or GCM) 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 admission application form 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 or GCM).

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, 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 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;
- (ii) contribute to the Default Fund 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.

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 and cannot therefore be assigned or transferred without LCH SA's prior written approval.

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

The six months time limit does not apply where a Clearing Member, which is already active on one or several markets, applies to extend its activities 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 provided that Clearing Member's membership remains valid.

CHAPTER 2 - LEGAL OBLIGATIONS

Section 2.2.1 Regulatory Framework

Article 2.2.1.1

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

- a) be validly incorporated;
- 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 fulfill the requirements of expertise and capability as determined by LCH SA pursuant to Articles 2.2.2.5 to 2.2.2.7 and ensure that the persons competent to take decisions will be accessible to LCH SA during working hours of every Clearing Day;
- i) submit details accounts 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 to allow the debiting or crediting of such accounts for the settlement of Open Positions registered by 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;
- l) satisfy such other requirements as may be imposed by LCH SA generally or with respect to a category of Clearing Members.

Article 2.2.1.2

Applicants that 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.

Section 2.2.2 Corporate Organisation

A. Location of Offices

Article 2.2.2.1

A Clearing Member may locate the necessary human and technical resources required to carry on its clearing and back office activities 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 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

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 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.

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 Articles 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 Articles 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 International CSD 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 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.

Section 2.2.5 Test Processing

Article 2.2.5.1

Clearing 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.

CHAPTER 3 - CAPITAL REQUIREMENTS

Section 2.3.1 Common General Provisions

Article 2.3.1.1

The Clearing Member must satisfy the credit risk assessment minimum requirements. LCH SA assesses the credit risk of the Clearing 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. The analysis is performed on a predetermined methodology applicable to any Clearing Member.

Article 2.3.1.2

Any Letters of Credit that have been issued by a Clearing Member in favour of LCH SA to cover the obligations of another Clearing Member, pursuant to Articles 2.3.2.3 and 2.3.2.5, 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 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 the event that LCH SA considers that a 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.

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 2.3.2.3, 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 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

LCH SA may, but is not obliged to, adjust any of the requirements specified in Articles 2.3.3.1 and 2.3.3.2 to take into account a Clearing Member's consolidated financial situation, the quality of its shareholders, members or associates, and its legal structure.

Article 2.3.3.4

If a Letter of Credit has to be issued by a Clearing Member 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 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 to provide information also covers information about their Clients (including physical persons), concerning the identity, trading activities and Positions of Clients. 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, exposure to general and financial risks in the context of its clearing activities, or any requests made under the terms and conditions set out in an Instruction.

B. Mandatory Information

Article 2.4.1.3

Clearing 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.Clearnet SA may at its discretion require the provision of financial accounts and reports for any company belonging to the same Financial Group as the Clearing Member.

(ii) At the intervals required by the Competent Authority or by the regulations of the Home State or at other less frequent intervals accepted by LCH SA:

- interim balance sheet;
- 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.

Article 2.4.1.4

The Clearing Member must ensure that it complies 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 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 which may significantly affect the exercise of its duties or the orderly conduct of its activities as a Clearing Member. Such developments include in particular without limitation:

- (i) developments which could, or are likely to, result in the Clearing 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 these Rules;
- (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 Members' Capital.

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

Article 2.4.1.6

Clearing 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 must inform LCH SA of any instances of default they detect among their Clients and/or Indirect Clients.

Section 2.4.2 Audit and Inspection

Article 2.4.2.1

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

Article 2.4.2.2

The Clearing Member agrees to submit its clearing activity 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.

It will only decline to provide the required information where it is prevented from doing so by a mandatory provision of law or national regulation.

Article 2.4.2.3

The Clearing Member authorises LCH SA, or any person or entity that has been duly designated, to carry-out an audit of its Systems and Operations. Further, it undertakes 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 hereby agrees 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.

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

Article 2.4.2.5

The Clearing 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 Chapter 5 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 is no longer able to satisfy one or more of the requirements set 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 these Clearing Rules, LCH SA may:

- (i) suspend its membership;
- (ii) terminate its membership as stated in the Admission Agreement;
- (iii) refuse to register Transactions; and/or
- (iv) subject registration of Transactions to specific conditions, or impose additional conditions which LCH SA deems appropriate in the circumstances and notifies in writing to the Clearing Member.

Article 2.5.1.2

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

Article 2.5.1.3

In the event a Clearing 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 by means of publication in a Notice ; and (ii) ~~to~~ 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 activities 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 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.

Section 2.5.3 Termination

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 or liquidate the Clearing Member's Open Position(s).

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, 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 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 Transactions resulting from the exercise or assignment of options on Securities.

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.

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

LCH SA may perform adjustments⁷ on Open Positions reflecting corporate events on flows at the record date 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 and in the currencies listed in a Notice.

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.

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 request of such-Clearing Members 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.

Without prejudice to the above principle, the Individual Clearing 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 both on real-time basis and, on a daily consolidated basis, of the Trade Legs registered in its name.

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) and by Financial Instrument.

B.2. Collateral Accounts**Article 3.2.2.7**

For each Clearing 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.

Without prejudice to the above principles, the Clearing 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.

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 at 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 Repos 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 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 on the Cash & Derivatives Clearing System

A. Common Provisions

A.1. General

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 Clearing Day before the Settlement Date, after having processed the corporate events, LCH SA operationally nets all the Open Positions having the same Settlement Date which are registered in one Delivery Account and sends the settlement instructions to the corresponding Settlement Addresses. 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

Following a continuous net settlement process, if an Open Position is not settled, an adjustment will take place upon the terms specified in an Instruction.

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 Securities, a Clearing Member, which is not itself a Trading Member or a Clearing Member on the corresponding Securities markets must designate one Trading Member or Clearing Member active on the market where the underlying is traded and having the appropriate settlement solutions to perform all its Exercises or Assignments of option contracts.

Article 3.4.1.7

The delivery of the underlying Financial Instruments of Derivatives is performed on outstanding Open Positions at the maturity date and under the conditions set out in an Instruction. The delivery gives rise either to the exchange of underlying asset against cash payment, or to a cash settlement. Upon expiry of a Derivative, either the delivery of the underlying Securities, or a cash settlement occur pursuant to 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 Article 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 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 of cash 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, to repurchase or resale at the initiative of LCH SA, . Such repurchase or resale is to be made in accordance with buy in or sell out procedures 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, 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 fulfilled 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 shall communicate to LCH SA all information concerning the identity, the Positions, and the solvency of their Clients.

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 in order to continuously monitor the risk management as performed by the Clearing 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.

CHAPTER 2 - MARGIN REQUIREMENTS

Article 4.2.0.1

Variation Margin and Initial Margin are debited or credited by LCH SA on a daily basis.

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; or
- (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; and
- (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 completion 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 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, and 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 is obliged to 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) 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 guarantee in favour of LCH SA.

In the second case, the Clearing Member must ensure the performance of the central bank’s obligations by entering into arrangements acceptable to LCH SA for the issuance of such guarantees.

Thus, the Clearing 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 guarantee to LCH SA within the time and under the conditions specified in a Notice.

Article 4.3.1.2

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 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 in respect of the relevant Product Group(s).

Article 4.3.1.3

Once a month, LCH SA shall determine the size of each Default Fund and the level of each individual Clearing Member’s contribution. 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 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 guarantees 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.

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.

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 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 (1) to (5) (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) to be 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 will be required to contribute individually to such losses in an amount which may not exceed 100% of each non-Defaulting Clearing 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 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 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' 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 or termination of a Clearing Member's LCH SA membership will become effective and all non-Defaulting Clearing Members (including resigning Clearing Members and Clearing Members whose Clearing Member status is to be terminated for whatever reason) shall remain liable for all the obligations contained in Articles 4.3.3.1 and 4.3.3.2 above 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 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 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 any of its contributions which have not been used.

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 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 shall provide sufficient Collateral to LCH SA as necessary for the performance of the obligations of the Clearing Member. The amount of Collateral is determined by LCH SA.

Article 4.4.0.3

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

Where the Clearing Member is to provide Collateral in the form of the issuance of a 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 guarantee agreement so that the central bank can issue its guarantee to LCH SA by not 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 must indicate to LCH SA to which Collateral Account 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.

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.

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 discretionary 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, 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 Margins 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 ; and/or
- (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.

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 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 ;
- (i) Failure to pay Initial Margin, Variation Margin, Intra-day Margin or any additional Margin amounts as indicated in Article 4.2.0.4, imposed by LCH SA or failure to make a required contribution to the Default Fund, within the stipulated time limits ;
- (iii) Non successful settling of Net Fails via a buy in or a sell-out procedure.

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 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 regard to the need to act promptly, 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.

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 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), and (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) 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 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));
- (iv) 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,
- (v)
 - (a) the available contributions to the relevant Default Fund made by the other Clearing Members—as per Article 4.3.1.1 including any replenishment contributions deposited as per Article 4.3.3.1 and any Refill Contributions deposited as per Article 4.3.3.1, prorata to such other Clearing Member's share in the contributions of non-Defaulting Clearing Members to the relevant Default Fund immediately prior to the Event of Default;
 - (b) the Service Continuity Contributions made by non-defaulting Clearing 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 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 to contribute to the relevant Default Fund is used, or if a payment is made pursuant to item 4 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 KnownClient, 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 any Client positive net balance owed by LCH SA to the Defaulting Clearing Member pursuant to the provisions above)

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 interests 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 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 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, 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.

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 2.2.3, 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 CSD as the triparty agent for its Triparty Repos;
- (ii) 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) 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.

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 1.3.1.5, 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 ;
- (ii) 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
- (iii) 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 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, 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

LCH SA shall calculate and call Triparty Repo Interest Margin on Transactions executed on 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 Repo Transactions, 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.