

Collateral Account segregation

Holding and processing collateral with LCH

LCH The Markets'
Partner



Contents

Introduction.....	5
Who we are	5
Markets Covered	5
About this document	5
Collateral custody LCH Ltd and SA	7
Account structures for LCH Ltd	8
Clearing Mnemonic.....	8
Member Mnemonics	8
Sub Accounts	8
House accounts – “H”	8
Client Accounts – “C”	9
Default accounts – “F”	9
Buffer accounts “B” and “E”	9
Net Cash Settlement Accounts – “I” and “L”	9
Segregated accounts.....	9
Client Sub Accounts	9
Client Accounts – “C”	10
Omnibus Segregated Accounts (OSA) – “O”	10
Individual Segregated Accounts (ISA) – “S”	10
Indirect Client Accounts (ICA) – “V”	10
Additional Sub Account Types.....	10
Sub account identifier mapping to client identifiers.....	11
Margin calls	13
House and OSA Sub Accounts – Non Swapclear.....	13
OSA Sub Accounts – Swapclear	13
ISA and ICA Sub Accounts – Non Swapclear	13
ISA and ICA Sub Accounts – Swapclear	14

Account configuration for OSAs, ISAs and ICAs.....	15
Auto-repay functionality.....	15
PPS accounts for additional OSAs, ISAs and ICAs	15
Provision of collateral - Cash	16
Depositing cash collateral.....	16
Withdrawing cash collateral	16
Provision of collateral – Bilateral Non cash.....	16
Lodging securities	17
Releasing securities	17
Provision of collateral – Triparty.....	17
Triparty Agents	17
Account structure	18
Opening a triparty transaction.....	18
Collateral transfers	18
Interest	18
Accommodation charges	19
SWIFT MX interface	19
STP reconciliation	19
Splitting cash and security instructions	19
Aggregate PPS Calls	20
Account structure for LCH SA.....	21
Clearing Member code	21
House segregated liabilities.....	21
Client segregated liabilities.....	21
Market Maker segregated liabilities	22
Gross Client segregated liabilities	22
Client segregation account structure	22
1. For Listed Equities market, Listed Derivatives market (equity options & commodities), and RepoClear SA (except CDS and €GCplus).....	22
2. For CDS	22

3. For €GCPlus	23
Client Accounts	23
Omnibus Segregated Accounts (OSA)	23
Individual Segregated Accounts (ISA).....	23
Indirect Client Accounts (ICA).....	24
Collateral account identifier mapping with clearing member code	24
Treasury reports	24
Margin calls	27
Process per Collateral Account Type	27
House OSA Collateral Accounts	27
ISA Sub Accounts	27
Target2 and Custody accounts for additional OSAs and ISAs	27
Account configuration for OSAs and ISAs	28
Auto-repay functionality.....	28
Provision of collateral - Cash	28
Depositing and withdrawing euro Cash	28
Depositing cash collateral	28
Withdrawing cash collateral.....	28
Provision of collateral – Securities.....	29
Lodging securities	29
Releasing securities.....	29
Collateral transfer.....	29
Interest	29
Accommodation charges	30

Introduction

Who we are

The LCH Group is the leading independent clearing house, serving major international exchanges and platforms, as well as a range of OTC markets. It clears a broad range of asset classes including: equity, exchange-traded derivatives, energy, freight, foreign exchange derivatives, interbank interest rate swaps, credit default swaps and the majority of the Euro-denominated and sterling bond and repo markets.

Markets Covered

LCH Ltd clears a diverse range of asset classes worldwide, clearing more markets than any other clearing house. Open the link below on the LCH member website for more information:

www.lch.com/asset-classes



About this document

This document offers an overview of the Collateral Services provided to Clearing Members of LCH Group (hereafter referred to as “the Clearing House”). Its aim is to ensure that members have a good understanding of collateral processing as a result of requirements of the European Market Infrastructure Regulations (EMIR), particularly around account segregation.

This document does not detail any changes resulting from Dodd Frank regulations for Clearing Members designated as Futures Commission Merchants (FCMs).

The following are outlined:

01. Account structure options for handling a greater degree of segregation for client assets;
02. Processes for providing cash and non-cash collateral to cover liabilities and margin calls;
03. Methods of instructing and viewing balances and movements of collateral within the Collateral Management System (CMS) for LCH business; and
04. Reporting of collateral balances to Clearing Members.

The document is split into two sections, the first describes changes that are relevant to LCH Ltd business and the second those changes that impact Clearing Members of LCH SA.

LCH is committed to providing clear information on the above in order to ensure that members have a good understanding of the services provided. We therefore welcome questions and comments on this document.

Enquiries

Questions about LCH Ltd/SA Collateral Services should be emailed to:

collateral.services@lch.com

Collateral custody LCH Ltd and SA

LCH holds securities collateral in accounts of Securities Settlement Systems in accordance with EMIR 47 (3). A list of locations where collateral is held can be found at the following location:

www.lch.com/risk-collateral-management/collateral-management

Account structures for LCH Ltd

Clearing Mnemonic

The Clearing House maintains an identifier of the Clearing Member which identifies the Clearing Member legal entity i.e. the legal counterparty to the Clearing House, this is known as the clearing mnemonic.

Member Mnemonics

The identifier for a Clearing Member on a given market is known as the member mnemonic. Member mnemonics are used to map liabilities to the correct account. It is possible for a member to use the same member mnemonic for more than one Clearing Service. However Swapclear, Forexclear and Repoclear Members must maintain a mnemonic that is not shared with other Clearing Services.

Member liabilities for a certain markets are provided at the member mnemonic level for their house and client sub-accounts.

When a Clearing Member lodges collateral with the Clearing House they do so at the level of the member mnemonic and sub account i.e. to cover liabilities for that market for their house or client business. When a member uses a single mnemonic for more than one Clearing Service the member is able to lodge collateral to cover liabilities across those Clearing Services.

Sub Accounts

At the member sub account level the Clearing House holds:

Cover and Non Cover accounts for:

01. Cover in the form of cash balances in different currencies;
02. Cover in the form of balances of non-cash collateral e.g. securities, triparty collateral; and
03. Non Cover accounts for payments that cannot be used to cover liabilities i.e. coupon interest.

Asset vs liability offsetting happens at the cover account level. Margins calls are related to a collateral shortfall at this level.

House accounts – “H”

A House cover account allows clearing services to provide liabilities for the Clearing Member proprietary business for offsetting against the Clearing Member’s proprietary assets held within the cover account at this level.

Client Accounts – “C”

A Client cover account allows clearing services to provide liabilities for a group of clients to be offset against an omnibus pool of assets held within the account.

Default accounts – “F”

A default fund account allows the Clearing House to specify the default contributions to be collected from each Clearing Member. A liability is associated to the default fund from each market (or group of markets) cleared by the Member. Only a cash account is associated to the account since default liabilities cannot be covered in non-cash according to current rules.

Buffer accounts “B” and “E”

Clearing services may utilise a buffer cover account on both the House “B” and Client side “E”. These are used in order to call additional margin during the day.

Net Cash Settlement Accounts – “I” and “L”

These non cover accounts are used to facilitate the payment of coupons to members holding securities as collateral. Coupons are paid directly to the member’s PPS account on payment date, coupon outturns are not credited to the members collateral (cover) accounts to be used to offset liabilities. “I” accounts are for coupons related to House business, “L” accounts are for coupons related to Client business.

Segregated accounts

The Clearing House offers a greater degree of segregation for Client accounts as follows.

The creation of these accounts will be specified by the Clearing Member and the example provided below is for illustration purposes only.

Legal entity – Clearing Mnemonic AAA																			
Member Mnemonic Swapclear AAS									Member Mnemonic Equityclear AAE										
House “H”		OSA “C”		OSA “Oxxx”		ISA “Sxxx”		Default “F”	House “H”		OSA “C”		ISA “Sxxx”		ISA “Sxxx”		ICA “Vxxx”		Default “F”
COV	Non COV	COV	NON COV	COV	NON COV	COV	NON COV	COV	COV	NON COV	COV	NON COV	COV	NON COV	COV	NON COV	COV	NON COV	COV

Client Sub Accounts

There are three types of client sub account: Omnibus Segregated Accounts (OSA), Individual Segregated Accounts (ISA) and Indirect Client Accounts (ICA).

Client Accounts – “C”

Clearing Members will continue to be able to operate their current “C” account where no further client segregation is required. These accounts are designated as “OSAs” under EMIR.

Currently the “C” account (see above) provides an omnibus asset account used to offset aggregated or net (depending upon the clearing service) client liabilities. Under EMIR this is an Omnibus Segregated Account “OSA”.

Omnibus Segregated Accounts (OSA) – “O”

A Clearing Member may define more than one OSA account in order to group specific clients together.

The OSA can allow clearing services to provide liabilities for a defined group of clients to be offset against an omnibus pool of assets held within the account. These additional OSA accounts will be designated a four digit code starting with the letter “O”.

Individual Segregated Accounts (ISA) – “S”

An ISA allows clearing services to provide individual client level liabilities to be offset against assets held for the same individual client only within the account.

A Clearing Member may define more than one ISA account in order to segregate individual clients. The ISA accounts will be designated a four digit code starting with the letter “S”.

Indirect Client Accounts (ICA) – “V”

EMIR requires the Clearing House to support the Indirect Client Model where a Direct Client, can have its own Indirect Clients.

A Direct Client (operating an ISA account) can opt with the agreement of the Clearing Member to open one or more ICA account(s) in order to segregate underlying client assets. The ICA accounts will be designated a four digit code starting with the letter “V”. The ICA account will operate in the same way as a regular OSA account but be labelled to show who the relevant Direct Client is and the Clearing House will apply the same reporting and liquidation rules to the ICA account as that of the Direct Client’s ISA account (in the event of Member default).

Additional Sub Account Types

The “L” account whilst also still used as a non cover account for coupons related to Client business will now also be used in a cover account capacity under certain circumstances for variation margin (VM) net cash postings. See below for further details on this change.

Sub account identifier mapping to client identifiers

As per above the sub account code used to identify an OSA, ISA or ICA will consist of four characters within the Clearing House's collateral systems e.g. "O123", "S123" and "V123".

Clearing services will send client liabilities to be offset against client assets using the client account identifier used by the clearing service. There is currently no consistency in the type of identifiers used across clearing services. Clearing systems will therefore send the identifiers of their clients in the format that is used by the clearing system, these are typically BICs or proprietary identifiers.

Liabilities for the client account identified will be mapped to the correct collateral account for that client in the collateral systems. In order for Clearing Members to have traceability of client liabilities to assets, Banking reports provided such that the client account identifiers that are provided in clearing service reports are displayed alongside the sub account identifier currently used in Banking reports.

For OSA and ICA accounts the clearing service will pass on the unique account identifier that is used by that service, rather than a client specific identifier.

In the example below:

01. ISA sub account "S123" is associated to SwapClear (SWP) client with ID "CLIENT123"
02. ISA sub account "S456" is associated the same as EquityClear (ECL) client "CLIENTIDDEF"
03. ICA sub account "V963" is associated to SwapClear (SWP) client with ID "CLIENT963"
04. OSA sub account "O789" is associated to EnClear (EDX) account with ID "ACCTID789"
05. ICA sub account "V963" is associated to SwapClear (SWP) account with ID "ACCTID963"
06. "H" House and "C" OSA sub accounts continue to be reported in the same way as all clearing services use the standard "H" and "C" references.

Account Sub AcctReport Account field

House	H	H
OSA	C	C
ISA	S123	S123/SWP-CLIENTID123
ISA	S456	S456/ECL-CLIENTIDDEF
OSA	O789	O789/EDX-ACCTID789
ICA	V963	V963/SWP- ACCTID963

The example below shows how a member report will be enhanced to provide both banking sub account details together with the relevant client identifier used by the clearing system.

Doc No - REP00036

LCH.Clearent Limited
Non Cash Collateral Holdings

Report Last Refreshed: 11/07/2013 22:33:43

Date 31/05/2013
 Member AAC ← **Member mnemonic**
 Sub Acc S001/SWP-AID096 ← **Market code – Client identifier**
 ← **Sub account code**
 Securities

ISIN	CCY	Nominal	Haircut	Cover Calling Price	Pay Down Factor	Cover Value	Value Date	Expiry Date	Custodian & Acc No.	Lodgement Ref
AK1234567890	USD	1,456,789.00	2.00	23.000000	1.000000	328,380.24	29/05/2013	30/12/2014	DBS BANK LTD SINGAPORE	ASK1
US912828HZ85	USD	3,000,000.00	8.88	114.875000	1.000000	3,209,148.00	27/05/2013	15/05/2018	JPMGN CHASE BK NA LDN (PAD)	

Margin calls

House and OSA Sub Accounts – Non Swapclear

Initial Margin (IM) and Variation Margin (VM) will be posted to the account, margin calls will be generated for IM deficits and to settle VM.

Excess cash balances will be repaid to the Clearing Member at the end of each day if the Clearing member has opted into the “auto-repay” facility.

OSA Sub Accounts – Swapclear

For Swapclear OSA accounts all cash postings in relation to VM will be posted to the net cash settlement account “L” and will be netted together with all posting for OSA, ISA and ICA accounts within the mnemonic.

There will be no offsetting of debit VM postings against excess cash held on the OSA account. The OSA account will only be subject to margin calls resulting from insufficient cover of IM.

Excess cash balances will be repaid to the Clearing Member at the end of each day if the Clearing member has opted into the “auto-repay” facility.

ISA and ICA Sub Accounts – Non Swapclear

For ISAs and ICAs the following rules will apply:

01. Only liabilities (e.g. initial margin) are posted to an ISA or ICA to be offset against assets on the account; and
02. All variation margin (VM) postings will by default be posted to a net cash settlement account “L” and will not be posted to the ISA / ICA itself. Postings for ISA or ICA accounts within the same member mnemonic will therefore be netted with all other ISAs and ICAs for the same mnemonic. This will significantly reduce the volume of PPS calls and pays such that there is only a single net call or pay per currency.

Clearing Member’s may request that variation margin (VM) postings are instead applied directly to the ISA or ICA, however it is recommended that variation margin and other cash flows for ISA and ICAs are netted per currency through the “L” account (see example below). This option will increase PPS traffic and it is therefore necessary to discuss the impact with the LCH and the relevant PPS Bank.

Where a net cash settlement account “L” is used there will be no offsetting of VM against cash held on an ISA or ICA account.

Where posting are applied directly to the ISA or ICA, excess cash balances on the account will be used to offset any debit variation margin.

Where a net cash settlement account is used, ISAs and ICAs will only be subject to margin calls resulting from insufficient cover of initial margin.

By default excess cash collateral on an ISA/ICA will not be repaid automatically to the Clearing Member. Members wishing to withdraw excess cash from an ISA/ICA will need to request the cash be returned by inputting a Cash Withdrawal instruction in CMS.

ISA and ICA Sub Accounts – Swapclear

For ISAs and ICAs the following rules will apply:

01. Only liabilities (e.g. initial margin) are posted to an ISA or ICA to be offset against assets on the account; and
02. All variation margin (VM) postings will by default be posted to a net cash settlement account “L” and will not be posted to the ISA / ICA itself. Postings for ISA or ICA accounts within the same member mnemonic will therefore be netted with all other ISAs and ICAs for the same mnemonic. This will significantly reduce the volume of PPS calls and pays such that there is only a single net call or pay per currency. There will be no option to direct VM posting directly to ISA or ICA accounts.

Where a net cash settlement account is used ISAs and ICAs will only be subject to margin calls resulting from insufficient cover of initial margin.

By default excess cash collateral on an ISA/ICA will not be repaid automatically to the Clearing Member. Members wishing to withdraw excess cash from an ISA/ICA will need to request the cash be returned by inputting a Cash Withdrawal instruction in CMS.

Account configuration for OSAs, ISAs and ICAs

It is possible for each ISA, OSA and ICA to have different configuration with respect to the way that margin calls are processed on the account. The main items of configuration are:

01. Whether the account should utilise cash or non-cash collateral first in order to cover liabilities;
02. What currency should be used to meet margins calls generated at the end of day;
03. What currency should be used to meet margin calls generated intraday; and
04. What email addresses should be used to notify margin call.

When creating a new OSA, ISA or ICA, Clearing Members will be given the option to specify these details for each new account by default any new account will be created with the same configuration as the existing “C” account of the same mnemonic.

Auto-repay functionality

The Clearing House provides a facility whereby cash balances that are identified as excess during end of day processing are automatically repaid to the Clearing Member’s PPS account the following morning.

For ISAs and ICAs the auto-repay functionality will be switched off. This will ensure that cash collateral that is deposited to the account will remain on the ISA/ICA. In order to request these cash balances be returned, a cash withdrawal instruction must be entered into CMS prior to the deadline specified for cash withdrawals.

For OSAs the auto-repay functionality will remain optional. Clearing Members may select to have excess balances returned or to leave the balances at the Clearing House.

PPS accounts for additional OSAs, ISAs and ICAs

Clearing Members can currently designate a single PPS account per currency to be debited (called) per sub account. It is possible to designate different PPS banks for different currencies.

There is no requirement for Clearing Members to open different PPS accounts for additional OSA, ISAs or ICAs, existing PPS account may be used.

The Clearing House will assume that the existing PPS accounts attached to the current “C” account will be used for any additional accounts unless the Clearing Member provides the Clearing House with a new PPS Mandate that specifies different accounts for any new OSA/ISA/ICA.

Likewise, by default the Clearing House will configure the net cash settlement account “L” to have the same PPS details as the main client omnibus “C” account unless the Clearing Member specifies different PPS accounts.

Provision of collateral - Cash

When depositing or withdrawing cash the Clearing Member must specify the OSA, ISA or ICA where the cash is to be credited or debited. Once the mnemonic has been selected in CMS the Clearing Member will then be able to select the sub account either by:

01. Sub account identifier i.e. for an ISA – “S123”, OSA – “O456”, ICA – “V963”; or
02. Client account identifier (used by the Clearing Service) – CLIENT123 etc.

This allows the Clearing Members the ability to search select the correct sub account using the identifier that they are used to rather than only the banking sub account code. Please note: There is no provision for unallocated collateral.

Depositing cash collateral

Members have the ability to deposit cash collateral onto OSAs, ISAs and ICAs. As is currently the case it will only be possible to deposit currencies that are accepted as cover for initial margin. Note: cash deposits can be made in addition to cash that has been called by the margin call process.

Cash deposits must be input via CMS. The deposit instruction will be processed by Collateral Operations and a PPS call will be generated to debit the linked PPS bank account. Value dates for all deposits will default to current value date for the currency but may be input for the next value date also.

Withdrawing cash collateral

Members are able to withdraw cash collateral from their cover account. Members will only be able to withdraw cash that is not currently being used as cover i.e. excess cash only.

Note: Members that have auto repay enabled (for House and OSAs only) do not need to request the return of excess cash as this will automatically be returned the following business day when identified as excess during overnight processing.

Excess cash balances on ISAs and ICAs will not be auto-repaid. Clearing Member can request the repayment of excess cash balances by inputting a Cash Withdrawal instruction in CMS.

Provision of collateral – Bilateral Non cash

When inputting instructions in CMS, Clearing Members must specify the sub account at the Clearing House to which the instruction pertains.

Once the mnemonic has been selected the Clearing Member will then be able to select the sub account either by:

01. Sub account identifier i.e. for an ISA – “S123”, OSA – “O456” , ICA – “V963”; or
02. Client identifier –CLIENT123 etc.

This allows the Clearing Members the ability to search and select the correct sub account using the identifier that used by the Clearing Service and not only the Sub Account code.

Lodging securities

Member must inform the Clearing House of their intention to lodge eligible securities via an instruction in CMS.

Instructions that have been input and authorised by the member are then processed by the Collateral Operations team. A matching instruction will be input with the relevant CSD/Custodian and settlement of the instruction will be monitored. Once the settlement of securities transactions has been confirmed by the CSD/custodian, the Clearing House will update the balance of collateral on the relevant member’s collateral account and allow the collateral to be used as cover for liabilities for the specified account.

Releasing securities

Clearing Members can release collateral by informing the Clearing House of their intention to release securities via an instruction in CMS.

The Collateral Operations team will ensure that the release of the securities would not cause them to be insufficient cover on the account and will only input a matching instruction upon confirmation of this. Note: Additional collateral in the form of cash or securities may be required before the securities can be released.

Provision of collateral – Triparty

In order to lodge securities at the Clearing House using a Triparty arrangement, the relevant tripartite documentation between the Clearing Member, the Triparty Agent and the Clearing House must be in place.

Triparty Agents

Triparty Collateral Management is provided to the Clearing House by Euroclear Bank and Clearstream.

Account structure

The Triparty provider will set up unique collateral 'giver' (member) and collateral 'taker' (LCH.C) accounts. The 'giver' account is nominated by the member at the time of set-up and is segregated per Clearing Member. Clearing Members may set up more than one giver account if required.

Opening a triparty transaction

Clearing Members can instruct a triparty trade denominated in EUR, GBP or USD value to cover initial margin requirements via CMS.

As for all instructions the Clearing Member must designate the sub account that the triparty transaction is to be opened for. It will be possible to select a sub account either by specifying the sub account identifier or the Client identifier.

Collateral transfers

Clearing Members may input instructions to move collateral between accounts at the Clearing House (excluding triparty collateral). The following rules apply to transfers of collateral:

Transfer from	To House	To Client OSA	To Client ISA	To Client ICA
House	Yes	Yes	Yes	Yes
Client OSA	No	No	No	No
Client ISA	No	No	Yes *	Yes**
Client ICA	No	No	No	No

* Only where client is identified as the same (i.e. the same client with two ISAs operating under different member mnemonics)

** Only where the ICA is directly associated with the delivering ISA.

Validation in CMS will ensure that the above transfer rules are applied both to cash and securities. Note: transfers of triparty collateral between accounts are not possible

Interest

Interest on cash balances will be calculated on ISAs, OSAs and ICAs at the prevailing rate and will be credited (or debited) to/from cash balances on the account. Debit interest postings may result in a PPS call should the account contain insufficient cash to cover the debit.

Accommodation charges

Accommodation charges (where applicable) will be calculated on OSAs, ISAs and ICAs at the prevailing rate and will be debited from cash balances on the account.

Debit interest postings may result in a PPS call should the account contain insufficient cash to cover the debit.

SWIFT MX interface

The CMS application support a messaging interface that will allow Clearing Members to input certain instructions types via SWIFT message.

CMS will support SWIFT standard MX (20022) messaging for:

01. Cash – deposits, transfers and withdrawals; and
02. Securities – Lodge, release and transfer.

These messages must be sent over the SWIFT network. When properly validated by CMS these messages will create instructions at a status of “Instructed”. The Collateral Proposal Response message will notify the Clearing Member whether the message is acknowledged or negatively acknowledged with an appropriate error message.

Details of the SWIFT message specification and a guide to on-boarding to this service can be found at the following link:

www.lch.com/risk_management/lt/benefits_of_the_collateral_management_system

STP reconciliation

The Clearing House provides for Straight Through Processing (STP) standard SWIFT messages:

01. Cash Reconciliation via MT950 Cash Statement message;
02. Securities reconciliation via MT535 Statement of Holding message.

Both messages can be sent to the Clearing Member via the SWIFT message or can also be sent to a third party i.e. client or client’s custodian/collateral manager if required.

Splitting cash and security instructions

In order to reduce the potentially significant increase in settlement instructions between the Clearing Member and the Clearing House, CMS will allow input of single deposit and withdrawal cash instructions and single lodge or release security settlement instructions that may then be split to debit or credit multiple sub accounts upon settlement.

It will be possible for the Clearing Member to input a single aggregate instruction for cash or securities (i.e. either lodge or release but not both) for a specific ISIN / Currency and then specify to which accounts the resulting debit or credits are to be applied.

Note: the accounts must be associated to the same mnemonic.

For example:

ISIN	Quantity	Split	Credit accounts
GB1234567890	2,000	1,000	S123
		600	S456
		400	O123

OR:

Currency	Quantity	Split	Credit accounts
EUR	1,000,000	100,000	S123
		500,000	S456
		400,000	O123

Aggregate PPS Calls

The Clearing House offers aggregation of PPS call and pays across all sub accounts, whilst still providing a full breakdown of individual calls and pay amounts via enhanced reporting. Members are able to subscribe to this service as required.

Account structure for LCH SA

This section offers an overview of the collateral services provided to Clearing Members of all the LCH SA businesses:

01. Listed Equities markets,
02. Listed Derivatives (equity options & commodities) markets,
03. RepoClear SA,
04. €GCPlus and
05. CDS (Credit Default Swaps).

Clearing Member code

The Clearing House maintains an identifier of the Clearing Member which identifies the Clearing Member legal entity i.e. the legal counterparty to the Clearing House, this is known as the clearing member code.

This member code is defined for a Clearing Member on one or several markets. Member codes are used to map liabilities to the correct account. It is possible for a member to use the same member code for more than one Clearing Service. However CDS and €GCPlus Members must maintain a member code that is not shared with other Clearing Services.

Member liabilities are provided at the member code level for their house and client sub-accounts.

When a Clearing Member lodges collateral with the Clearing House they do so at the level of the member codes and segregation type i.e. to cover liabilities for that market for their house or client business. When a member uses a single code for more than one Clearing Service the member is able to lodge collateral to cover liabilities across those Clearing Services.

House segregated liabilities

A House segregation type allows clearing services to provide liabilities for the Clearing Member proprietary business for offsetting against the Clearing Member's proprietary assets held within the Collateral account at this level.

Client segregated liabilities

A Client segregation type allows clearing services to provide liabilities for a group of clients to be offset against the Client's assets held within the Client's Collateral account.

Market Maker segregated liabilities

A Market Maker segregation type allows clearing services to provide liabilities for market maker activities (for derivatives) to be offset against the Clearing Member's assets held within the Collateral account.

Gross Client segregated liabilities

A Clearing Member can offer a Gross Client Collateral account that allows clearing member to isolate liabilities of a specific client within this dedicated collateral account.

Client segregation account structure

Clearing House offers a greater degree of segregation for Client Collateral accounts as follows.

The structure introduces three new segregation types: Omnibus Segregated Accounts (OSA), Individual Segregated Accounts (ISA) and Indirect Client Accounts (ICA).

The Collateral Account nomenclature is created based on 5 alphanumeric for instance. Each new Collateral Account to be opened will follow the following rule.

1. For Listed Equities market, Listed Derivatives market (equity options & commodities), and RepoClear SA (except CDS and €GCplus)

xxxxx => New Collateral House account on 5 numeric digits maximum

Axxxx => Collateral Direct Client account on 5 alphanumeric digits

01. A => for Direct client

02. xxxx => specific code on 4 numerical digits to identified the client (incremental)

Alxxx => Collateral Indirect Client account on 5 alphanumeric digits

03. AI => for Indirect client

04. xxx => specific code on 3 numerical digits to identified the client (incremental)

2. For CDS

Cxxxx => New Collateral House & Client account on 5 alphanumeric digits

05. C => for CDS

06. xxxx => specific code on 4 numerical digits to identified House or Client (incremental)

Clxxx => Collateral Indirect Client account on 5 alphanumeric digits

07. CI => for Indirect client

08. xxx => specific code on 3 numerical digits to identified the client (incremental)

3. For €GCPlus

Exxxx => New Collateral House & Client account on 5 alphanumeric digits

01. E => for €GCPlus
02. xxxx => specific code on 4 numerical digits to identified House or Client (incremental)

EIxxxx => Collateral Indirect Client account on 5 alphanumeric digits

03. EI => for Indirect client
04. xxx => specific code on 3 numerical digits to identified the client (incremental)

Client Accounts

The same OSA or ISA can share one single collateral account for several business lines if its clearing member is the same for the business lines.

Omnibus Segregated Accounts (OSA)

A Clearing Member at client compartment level may define a structure involving several OSAs based on one collateral account dedicated to each OSA concerned in order to group specific clients together.

The OSA allow clearing services to provide liabilities for a defined group of clients to be offset against an omnibus pool of assets held within the Collateral account.

Those OSAs can be margined on a “gross” or “net” basis.

01. For the OSA gross, each trade/position account has a dedicated margin account linked to the common collateral account designated to this OSA gross structure.
02. For the OSA net, the different trade/position account are linked to one single margin account and one collateral account

OSA collateral accounts will be designated with a new five alpha-numeric digit code.

Individual Segregated Accounts (ISA)

A Clearing Member at client compartment level may define a structure involving several ISAs based on one single trade/position account linked to one margin account linked to one collateral account dedicated to each ISA concerned.

The ISA allows clearing services to provide individual client level liabilities to be offset against assets held for the same individual client only within the account.

ISA collateral accounts will be designated with a new five alpha-numeric digit code.

NB: For harmonization purposes, the existing Gross Client account will be renamed Individual Segregated Account (ISA).

Indirect Client Accounts (ICA)

EMIR requires the Clearing House to support the Indirect Client Model where a Direct Client can isolate its own Indirect Clients.

Only the Direct Client in ISA structure mode can ask its Clearing Member to open one or more ICA account(s) in order to segregate positions and underlying assets of one or more Indirect clients.

The ICA account will operate in the same way as a regular ISA/OSA account but be labelled to show who the relevant Direct Client is and the Clearing House will apply the same porting and liquidation rules to the ICA account as that of the Direct Client's ISA account (in the event of Member default).

Note: For ease of explanation, ICA account is not detailed in the document as it will follow the same process as an ISA/OSA account.

Collateral account identifier mapping with clearing member code

As per above the collateral account code used to identify an OSA, ISA or ICA will consist of up to five alpha-numeric characters within the Clearing House's collateral systems; e.g.:

01. "Axxxx or A1xxx",

Liabilities for the client identified will be mapped to the correct collateral account for that ISA, OSA, ICA in the collateral systems. In order for Clearing Members to have traceability of ISA, OSA, ICA liabilities to assets, the Clearing House will adapt the Treasury reporting provided such that the holder of ISA/OSA/ICA account Identifiers are provided in clearing service reports alongside the collateral account identifier currently used in Treasury reports.

```
1 CODE ETAT : AC0102E BANQUE CENTRALE DE COMPENSATION DITE LCH SA - 18 RUE DU QUATRE SEPTEMBRE 75002 PARIS
  BANQUE CENTRALE DE COMPENSATION DITE LCH SA - 18 RUE DU QUATRE SEPTEMBRE 75002 PARIS PAGE 1
-----
|                                     |
|          DOCUMENT APPEL DE FONDS VALEURS MOBILIERES EN EUR - INITIAL          |
|          CASH SECURITIES CASH CALL DOCUMENT IN EUR - INITIAL                  |
|                                     |
-----
ADHERENT / MEMBER : Clearing Member A DATE DE VALEUR/VALUE DATE : 23/06/2016
CODE MEMBRE / MEMBER CODE : A0003 DATE DE BOURSE/TRADING DATE : 22/06/2016
```

The above example shows how all Treasury reports provide the relevant client identifier used by the banking system.

Treasury reports

All Treasury reports include any ISA/OSA identifiers linked to the Clearing Member along with their associated market code.

The Clearing House provides:

01. one Treasury report (AC0102) for House, for each ISA and for each OSA, plus
02. one Treasury Net Payment report (AC0113) summarizing the payments processed through Target2 for House, ISA and OSA collateral account linked to this CMF, and
03. one Treasury Global Cash Call report (AC0103).

The House settlement processes will be done on the Target2 RTGS account of LCH SA dedicated to House and Default Fund activities (namely: BACPFRRP TG2). The Client settlement processes will be done on the Target2 RTGS account of LCH SA dedicated to Clients activity (namely: BACPFRRP CLI).

Treasury report (AC0111) will integrate:

01. all the deposit and withdrawal demand of collateral (cash or securities) accepted or rejected,
02. the total excess collateral that includes the excess collateral requirement defined by Article 39.6 of EMIR* to be deposited in the relevant Collateral account.

See an example of Treasury report (AC0111) below:

1 CODE ETAT : AC0111E BANQUE CENTRALE DE COMPENSATION DITE LCH SA - 18 RUE DU QUATRE SEPTEMBRE 75002 PARIS
BANQUE CENTRALE DE COMPENSATION DITE LCH SA - 18 RUE DU QUATRE SEPTEMBRE 75002 PARIS PAGE 1

HISTORIQUE DES DEMANDES DE RETRAIT/DEPOT - INITIAL
HISTORY OF WITHDRAWAL/DEPOSIT REQUESTS - INITIAL

ADHERENT / MEMBER : Clearing Member A DATE DE VALEUR/VALUE DATE : 23/06/2016
CODE MEMBRE / MEMBER CODE : C0000 DATE DE BOURSE/TRADING DATE : 22/06/2016

Date Saisie	Heure Saisie	Mouvement	Qt/Mnt/Nom	Devise	Titre	Valorisation (EUR)	Statut
Input Date	Input Time	Movement	Qt/Amt/Nom	Currency	Security	Valuation (EUR)	Status

Aucune demande / No request

SOLDE APRES REGLEMENT / BALANCE AFTER SETTLEMENT (EUR EQ.)

	GLOBAL AMOUNT / MONTANT GLOBAL	ALLOCATED AMOUNT / MONTANT ALLOUE	AVAILABLE AMOUNT / MONTANT DISPONIBLE
CASH EUR	1.451.124,05	0,00	1.451.124,05
CASH GBP	0,00	0,00	0,00
CASH USD	0,00	0,00	0,00
SECURITIES / TITRES	8.056.454,52	1.443.100,83	6.613.353,69
TOTAL	9.507.578,57	1.443.100,83	8.064.477,74

* For an ISA client, excess margin called from the Client by the Clearing Member must be held at the CCP, be segregated from other Clients and Clearing Members, and not be exposed to losses in any other Account.

HISTORIQUE DES DEMANDES DE RETRAIT/DEPOT - INITIAL
 HISTORY OF WITHDRAWAL/DEPOSIT REQUESTS - INITIAL

ADHERENT / MEMBER : Client ISA DATE DE VALEUR/VALUE DATE : 23/06/2016
 CODE MEMBRE / MEMBER CODE : C0001 DATE DE BOURSE/TRADING DATE : 22/06/2016

Date Saisie Input Date	Heure Saisie Input Time	Mouvement Movement	Qt/Mnt/Nom Qt/Amt/Nom	Devises Currency	Titre Security	Valorisation (EUR) Valuation (EUR)	Statut Status
22/06/16	12:17:19	Entrée	91.000.000,00	EUR	BE0000323320	96.876.119,34	ACP

SOLDE APRES REGLEMENT / BALANCE AFTER SETTLEMENT (EUR EQ.)

	GLOBAL AMOUNT / MONTANT GLOBAL	ALLOCATED AMOUNT / MONTANT ALLOUE	AVAILABLE AMOUNT / MONTANT DISPONIBLE
CASH EUR	1.009.507,31	1.009.507,31	0,00
CASH GBP	0,00	0,00	0,00
CASH USD	0,00	0,00	0,00
SECURITIES / TITRES	493.491.584,52	428.062.551,26	65.429.033,26
TOTAL	494.501.091,83	429.072.058,57	65.429.033,26

HISTORIQUE DES DEMANDES DE RETRAIT/DEPOT - INITIAL
 HISTORY OF WITHDRAWAL/DEPOSIT REQUESTS - INITIAL

ADHERENT / MEMBER : Client OSA DATE DE VALEUR/VALUE DATE : 23/06/2016
 CODE MEMBRE / MEMBER CODE : C0002 DATE DE BOURSE/TRADING DATE : 22/06/2016

Date Saisie Input Date	Heure Saisie Input Time	Mouvement Movement	Qt/Mnt/Nom Qt/Amt/Nom	Devises Currency	Titre Security	Valorisation (EUR) Valuation (EUR)	Statut Status
---------------------------	----------------------------	-----------------------	--------------------------	---------------------	-------------------	---------------------------------------	------------------

Aucune demande / No request

SOLDE APRES REGLEMENT / BALANCE AFTER SETTLEMENT (EUR EQ.)

	GLOBAL AMOUNT / MONTANT GLOBAL	ALLOCATED AMOUNT / MONTANT ALLOUE	AVAILABLE AMOUNT / MONTANT DISPONIBLE
CASH EUR	4.010.420,22	4.010.420,22	0,00
CASH GBP	0,00	0,00	0,00
CASH USD	0,00	0,00	0,00
SECURITIES / TITRES	256.754.545,28	210.433.987,05	46.320.558,23
TOTAL	260.764.965,50	214.444.407,27	46.320.558,23

Each of the 3 above-stated blocks of the Treasury report AC0111 gives the recap of all collateral movements (deposits, withdrawal) made per Collateral accounts of the Clearing Member "Clearing Member A" on June, 22 2016:

01. First block of information details "C0000" (CMF Account); i.e.: no collateral movement done for the Clearing member "Clearing Member A" on CDS.
02. Second block of information details "C0001" (ISA Account); i.e.: 1 collateral movement done for the ISA Client "C0001" of Clearing Member "Clearing Member A" on CDS.
03. Third block of information details "C0002" (OSA Account); i.e.: no collateral movement done for the OSA Client "C0002" of Clearing Member "Clearing Member A" on CDS.

For each block, the available collateral by Collateral account (CMF/ISA/OSA) is given.

On Listed Derivatives, Market Maker will not have a dedicated treasury report but it will be integrated in the "House" report if this market making activity is realised by the CMF or the "ISA/OSA" report if the market making activity is realized by the ISA/OSA concerned.

Margin calls

Process per Collateral Account Type

The following section outlines the Margin Call process per collateral account type.

House OSA Collateral Accounts

Initial Margin (IM) and Variation Margin (VM) will be posted to the account in the same way as currently on the Target2 RTGS account dedicated to clients (BACPFRRPP CLI).

Margin calls will be generated for IM deficits and to settle VM.

Excess cash balances will be repaid to the Clearing Member at the end of each day if the Clearing member has opted into the “auto-repay” facility.

ISA Sub Accounts

Initial Margin (IM) and Variation Margin (VM) will be posted to the account and called on the Target2 RTGS account dedicated to clients (BACPFRRPP CLI). Margin calls will be generated for IM deficits and to settle VM.

Excess cash balances will be repaid to the Clearing Member at the end of each day if the Clearing member has opted into the “auto-repay” facility.

Target2 and Custody accounts for additional OSAs and ISAs

Clearing Member deposits assets as follows:

01. EUR is settled via TARGET2 RTGS using two different RTGS accounts at CCP level for House and Clients.
02. GBP & USD are settled via commercial banks,
03. Securities are lodged using the same process as now.

The Clearing House book keeping must record assets as covering liabilities on specific ISA or OSA Collateral Accounts. Assets are held in an account with LCH RTGS account, Commercial bank account or CSD/ICSD.

A Clearing Member makes deposits and withdrawal of assets by indicating which House, ICA, ISA or OSA Collateral Account are concerned to ensure the assets are recorded in the relevant Collateral account.

The Clearing House will assume that the existing Target2 RTGS accounts used to settle the existing House and Clients cash posting will be used for any additional collateral accounts at CMF level unless the Clearing Member provides the Clearing House with any new Target2 RTGS accounts.

Account configuration for OSAs and ISAs

A new OSA or ISA collateral account will be created with the same configuration as existing Client accounts.

Auto-repay functionality

The Clearing House provides a facility whereby cash balances that are identified as excess during end of day processing are automatically repaid to the Clearing Member's Target2 account the following morning.

For OSA and ISA, the auto-repay functionality will not be activated. Clearing Members may ask to have excess balances returned by specific withdrawal demand.

Provision of collateral - Cash

When depositing or withdrawing cash, the Clearing Member must specify its House, OSA or ISA collateral account where the cash is to be credited or debited in CMS.

Depositing and withdrawing euro Cash

When depositing or withdrawing euro cash, the Clearing Member must specify its House collateral account and use the dedicated Target2 RTGS account of the CCP for such (BACFRPPTG2).

For the OSA or ISA collateral account, the Clearing Member must specify the collateral account where the euro cash is to be credited or debited and use the dedicated RTGS account of the CCP for such (BACFRPPCLI).

If the collateral accounts concerned are not indicated, the cash deposit on client side will be put onto an unallocated collateral account waiting further allocation. If this allocation is not received by the CCP before 16:00 CET, the cash amount will be returned to the Clearing Member.

Depositing cash collateral

Members will be provided with the ability to deposit other currency (GBP, USD) cash collateral onto OSAs and ISAs Collateral Account. As is currently the case, it will only be possible to deposit currencies accepted as cover for initial margin (GBP, USD).

Note: cash deposits can be made in addition to €uro cash that has been called by the margin call process.

Withdrawing cash collateral

Members are able to withdraw cash collateral only if it is not currently being used to cover liabilities. Nevertheless the collateral substitution processes will remain cash versus securities, cash (euro or currencies) versus cash (currencies or euro) securities versus cash or securities versus securities.

Provision of collateral – Securities

When depositing or withdrawing securities collateral the Clearing Member must specify the House, OSA or ISA Collateral Account where the securities collateral is to be credited or debited in CMS.

Lodging securities

Clearing Members should lodge collateral to House, OSAs and ISAs collateral accounts in the same way that collateral is lodged currently. Member must inform the Clearing House of their intention to lodge eligible securities via CMS.

An instruction will be input by the Clearing House with the relevant (I)CSD to be matched with the instruction sent by the Clearing Member. Once matched and settlement of securities transactions has been confirmed by the (I)CSD, the Clearing House will update the balance of collateral on the concerned collateral account (ISA/OSA/House) and allow the collateral to be used as cover for liabilities.

Releasing securities

Member must inform the Clearing House of their intention to release securities via CMS.

The Clearing House will ensure that the release of the securities would not cause there to be insufficient cover on the account and will only input a matching instruction upon confirmation of this. Note: Additional collateral in the form of cash or securities may be required before the securities can be released (cf. supra substitution processes).

Collateral transfer

Clearing Members may input instructions to move collateral between accounts at the Clearing House. The following rules apply to transfers of collateral:

Transfer from	To House	To Client
House	Yes	Yes
Client	No	No*

** Only where client is identified as the same (i.e. the same client with the same collateral account operating on different clearing services / markets). Example of Client to Client securities transfer: 12345 – FI to 12345 – EQU*

Validation in CMS will ensure that the above transfer rules are applied both to cash and securities. Note: Cash transfer is processed via a cash deposit followed by a cash withdrawal instruction.

Interest

Interest on cash balances will be calculated on ISAs and OSAs at the prevailing rate and will be credited (or debited) to/from cash balances on the account.

Accommodation charges

Accommodation charges (where applicable) will be calculated at OSAs and ISAs Collateral Account level at the prevailing rate and will be debited from cash balances on the concerned account.