

Collateral Account Segregation

Holding and processing collateral with LCH Ltd

LCH The Markets'
Partner



Contents

1.	Introduction	5
1.1	Who We Are	5
1.2	About This Document	5
1.3	Enquiries	6
2.	Account Structures.....	7
2.1	Clearing Mnemonic	7
2.2	Service Mnemonics	7
2.3	Sub-Accounts	7
2.4	Account Segregation Options	8
2.5	Indirect Clearing	9
2.6	Cover and Non-Cover Ledgers	10
2.7	Collateral Accounts.....	10
2.7.1	Proprietary Account – “H”	10
2.7.2	Omnibus Client Segregation Account – “C”	10
2.7.3	Default accounts – “F”	10
2.7.4	Buffer Account “B”	10
2.7.5	Net Cash Settlement Accounts – “I” and “L”	10
2.7.6	Additional Omnibus Client Segregation Account – “Oxxx”	10
2.7.7	Individual Client Segregation Accounts – “Sxxx”	11
2.7.8	Indirect Accounts – “Vxxx”	11
2.7.9	Client Buffer Accounts – “P”	11
2.8	Agent Member Collateral Accounts	12
2.8.1	Agent Buffer Account – “H”	12
2.8.2	Agent Resource Contributions Account – “R”	12
2.9	Mapping Collateral Account to Initial Margin Liabilities.....	12
2.9.1	Banking Report Examples	14
2.9.2	CMS Examples.....	15

3.	Calls and Pays.....	16
3.1	ForexClear, EquityClear, LSEDM, Listed Interest Rates.....	16
3.1.1	Proprietary Accounts.....	16
3.1.2	Client Accounts.....	17
3.2	SwapClear	18
3.2.1	Proprietary Accounts.....	18
3.2.2	Client accounts	18
3.3	RepoClear.....	20
3.3.1	Clearing Member and Sponsored Member Accounts.....	20
3.3.2	Agent Member Accounts	20
4.	Account Configuration Options	22
4.1	Account Preferences	22
4.2	Auto-Repay Functionality	22
4.3	PPS Accounts.....	23
4.4	Aggregate PPS Calls	23
4.5	PPS Processing on Currency Holidays.....	23
5.	Non-Cover Cash Flows	25
5.1	Interest	25
5.2	Accommodation charges	25
5.3	Coupons and Redemptions of Securities Collateral	25
5.4	Intraday Coupons on Cleared Positions	25
6.	Provision of Collateral	26
6.1	Depositing Cash Collateral.....	26
6.2	Withdrawing Cash Collateral	26
6.3	Splitting Cash Instructions	26
6.4	Provision of Securities Collateral – Bilateral	27
6.4.1	Lodging Securities Collateral	27
6.4.2	Releasing Securities Collateral.....	27
6.5	Provision of Securities Collateral – Triparty	27

6.5.1	Triparty Agents	27
6.5.2	Account Structure	27
6.5.3	Opening a Triparty Transaction	28
6.6	Collateral Transfers	28
6.7	CMS Message Service	28
6.7.1	Instructions	28
6.7.2	Reporting	29
7.	Securities Settlement Systems and Custodians	30
8.	Clearing Member Default - Porting	31
8.1	Overview	31
8.2	CSA	31
8.3	ISA	31
8.4	OGSA	32
8.5	ICONSA	32
8.6	ACONSA	32
8.7	NCONSA	33
8.8	INA	33
8.9	IGA	33

1. Introduction

1.1 Who We Are

LCH Ltd (**LCH**) is a 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 equities, exchange-traded derivatives, foreign exchange derivatives, interest rate swaps, and Euro and Sterling bond and repo markets. More information can be found on the LCH website - www.lch.com/services.



1.2 About This Document

This document offers an overview of the collateral services provided to clearing members of LCH (each, a **Clearing Member**). Its aim is to ensure that Clearing Members have a good understanding of collateral processing and account segregation at LCH.

This document does not cover Clearing Members designated as futures commission merchants (FCMs).

The following subjects are outlined in this document:

01. account structure options;
02. processes for providing cash and non-cash collateral to cover margin liabilities;
03. methods of instructing movements of collateral and of viewing collateral balances within the LCH collateral management system (**CMS**); and
04. reporting of collateral balances to Clearing Members.

LCH is committed to providing clear information on the above in order to ensure that Clearing Members obtain a good understanding of these subjects. We therefore welcome questions and comments on this document.

Words which begin with a capital letter, but are not defined, in this document have the meaning set out in the LCH rulebook which is located at www.lch.com/resources/rules-and-regulations/ltd-rulebooks (**Rulebook**).

1.3 Enquiries

Questions about collateral services should be emailed to collateral.services@lch.com.

2. Account Structures

2.1 Clearing Mnemonic

LCH maintains an identifier which identifies the Clearing Member.

2.2 Service Mnemonics

In addition, LCH maintains a mnemonic for each Clearing Member and a particular clearing service in which it participates (each, a **Service Mnemonic**), though it is possible for a Clearing Member to use the same Service Mnemonic for some clearing services.

2.3 Sub-Accounts

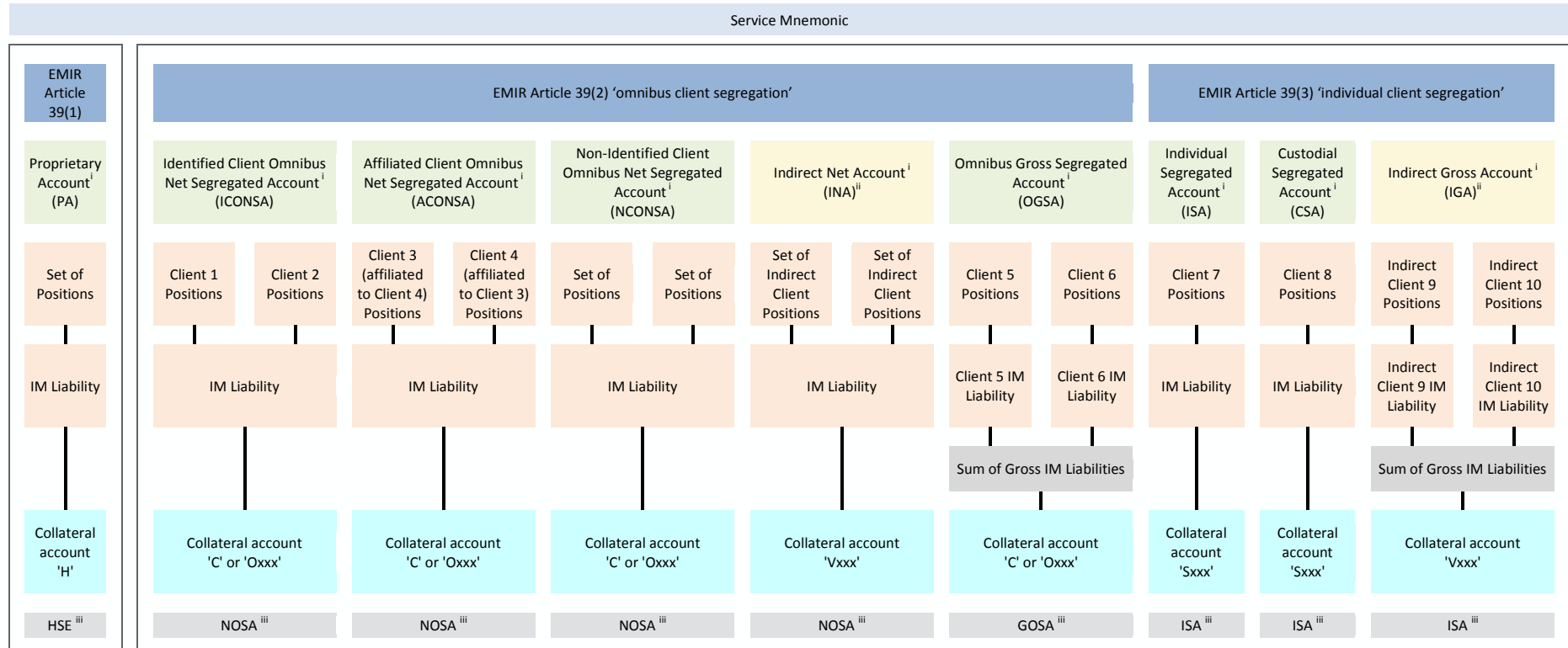
A Clearing Member's positions, liabilities and collateral are recorded to one or more sub-accounts at a level below the Service Mnemonic (each, a **Sub-Account**). At this level, there are various Client Account options available.

When a Clearing Member lodges collateral with LCH, it does so at the level of the Service Mnemonic and Sub-Account. When a Clearing Member uses the same Service Mnemonic for more than one clearing service, it is able to lodge collateral to cover liabilities across Sub-Accounts within such clearing services. Each Sub-Account is made up of the following components:

Set of Positions	These are the Clearing Member's positions which LCH has recorded to the Sub-Account
IM Liability	This represents the initial margin liability for the relevant set of positions
Collateral Account	This records the assets a Clearing Member has provided to LCH to cover its initial margin liability

2.4 Account Segregation Options

The following diagram outlines the different account options available to Clearing Members under the LCH Rulebook. Client Account options vary by clearing service, though all clearing services offer at least one 'omnibus client segregation' account and one 'individual client segregation' account in accordance with article 39(2) and 39(3) of Regulation (EU) No. 648/2012 (**EMIR**), respectively.



ⁱ Please refer to the LCH Rulebook for the definition of each Client Account listed here.

ⁱⁱ Please see section 2.5 for further details on Indirect Accounts

ⁱⁱⁱ CMS classification field

2.5 Indirect Clearing

Two types of Indirect Account are available within the SwapClear, Listed Interest Rates, ForexClear, EquityClear and LSE Derivatives Markets services.

These accounts enable LCH to comply with Commission Delegated Regulation (EU) 149/2013 (as amended by Commission Delegated Regulation (EU) 2017/2155) and Commission Delegated Regulation (EU) 2017/2154 (collectively, the **Indirect Clearing RTS**), as well as article 30 of Regulation (EU) No. 600/2014 (**MiFIR**). The two types of Indirect Account are broadly described below.

1. Indirect Net Account

This is an account which a Clearing Member opens with LCH in respect of one or more clients who are, in turn, each providing clearing services to their clients. LCH does not know the identity of the direct clients or the indirect clients. The account (a) reflects “omnibus client segregation” under article 39(2) of EMIR, and (b) is an account described under article 4(4)(a) of the Indirect Clearing RTS. The account operates in a very similar way to LCH’s Non-Identified Client Omnibus Net Segregated Account.

2. Indirect Gross Account

This is an account which a Clearing Member opens with LCH in respect of one client who is, in turn, providing clearing services to its clients. LCH knows the identity of the direct client, but does not know the identity of any of the indirect clients. The account (a) reflects “individual client segregation” under article 39(3) of EMIR, and (b) is an account described under article 4(4)(b) of the Indirect Clearing RTS. The account operates in a very similar way to LCH’s Individual Segregated Account, but with certain characteristics resulting from the Indirect Clearing RTS, including that LCH will determine margin requirements on a “gross” basis for this account. This means that such requirements will be determined, separately, in respect of the positions referable to a particular indirect client, rather than on a net basis across all positions registered to the account.

2.6 Cover and Non-Cover Ledgers

Each collateral account contains a cover and a non-cover ledger which records the following assets (as applicable):

01. cover in the form of cash collateral in different currencies;
02. cover in the form of non-cash collateral (e.g. securities collateral, triparty collateral); and
03. non-cover in the form of assets which LCH gives a value of zero for the purposes of a Clearing Member's margin liabilities (e.g. coupons on securities collateral).

The assets recorded to a cover ledger are able to offset margin liabilities.

2.7 Collateral Accounts

2.7.1 Proprietary Account – “H”

This account records collateral which a Clearing Member has provided to LCH in respect of its proprietary business and which is used to cover the Clearing Member's margin liabilities in respect of its Proprietary Account.

2.7.2 Omnibus Client Segregation Account – “C”

This account records collateral which a Clearing Member has provided to LCH and which is used to cover the Clearing Member's margin liabilities in respect of an Omnibus Gross Segregated Account (**GOSA**), Identified Client Omnibus Net Segregated Account (**ICONSA**), Affiliated Client Omnibus Net Segregated Account (**ACONSA**) or Non-Identified Client Omnibus Net Segregated Account (**NCONSA**).

2.7.3 Default accounts – “F”

This account records the default fund contributions a Clearing Member has provided to LCH, in respect of each clearing service. Default fund contributions must be paid in cash.

2.7.4 Buffer Account “B”

A Clearing Member may be required to utilise a buffer account “B” in relation to the RepoClear and/or SwapClear service. LCH will determine the margin requirement on this account. The account records any collateral the Clearing Member has provided to LCH, in respect of the relevant service, to meet its margin requirement on such “B” account.

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

These accounts are used to facilitate the payment of variation margin and cash amounts (e.g. price alignment interest, coupons), which are settled on a net basis.

2.7.6 Additional Omnibus Client Segregation Account – “Oxxx”

This account is similar to the “C” collateral account described in section 2.7.2, except that it records collateral that covers the Clearing Member’s margin liabilities in respect of a different GOSA, ICONSA, ACONSA or NCONSA to that relating to the “C” collateral account.

2.7.7 Individual Client Segregation Accounts – “Sxxx”

All clearing services offer the Individual Segregated Account (**ISA**), while SwapClear also offers the Custodial Segregated Account (**CSA**). The ISA and the CSA each provide ‘individual client segregation’ under article 39(3) of EMIR.

A Clearing Member may open multiple ISAs and/or CSAs. Each ISA and CSA will be associated with a collateral account which is designated a four digit code starting with the letter “S”.

2.7.8 Indirect Accounts – “Vxxx”

LCH offers Indirect Accounts in support of a Clearing Member’s indirect clearing arrangements.

A Clearing Member may open one or more Indirect Net Accounts (each, an **INA**) and/or Indirect Gross Accounts (each, an **IGA**) in order to facilitate its indirect clearing arrangements. Each INA and IGA will be associated with a collateral account which is designated a four digit code starting with the letter “V”.

The INA is margined on a net basis, whereas the IGA is margined on a gross basis. The IGA account(s) will be labelled to show who the relevant Direct Client is.

2.7.9 Client Buffer Accounts – “P”

The client buffer service is optional and available to SwapClear Clearing Members only. It is a service by which a pool of available collateral provided by a Clearing Member and recorded to its Client Buffer Account can be used to support the registration of, or to meet any other intraday margin requirements in connection with, positions in the Clearing Member’s Client Accounts.

2.8 Agent Member Collateral Accounts

An Agent Member will have the following accounts within the RepoClear sponsored clearing model (**Sponsored Clearing Service**).

2.8.1 Agent Buffer Account – “H”

This account records collateral provided by the Agent Member to satisfy any call for margin or contributions made with respect to its Sponsored Member(s) which has not been paid when due.

2.8.2 Agent Resource Contributions Account – “R”

This account records the agent resource contribution provided by an Agent Member to cover losses arising from the default of any of its Sponsored Member(s). Agent resource contributions must be paid in cash.

2.9 Mapping Collateral Account to Initial Margin Liabilities

A collateral account will consist of either one or four characters within LCH’s collateral system (e.g. “H”, “C”, “O123”, “S123” or “V123”).

For the single character accounts (i.e. “H”, “C”, “B”), both the initial margin liability and the relevant collateral account will reference the same corresponding character, on a one to one basis (e.g. H to H).

However, for the other accounts, a clearing service specific account identifier will be used to identify the initial margin liabilities. The convention will vary between clearing services, with the table on the next page outlining the specific format used by each clearing service.

In order for a Clearing Member to have traceability of its liabilities to its assets, LCH provides both collateral account and initial margin liability references in its banking reports and the CMS.

Account Identifier Conventions

Clearing Service (CS)	CS ID	Additional OGSA Format	Additional ONSA Format	ISA / CSA Format	INA Format	IGA Format
SwapClear	SWP	<32c>	<32c>	<32c>	<32c>	<32c>
ForexClear	FXC	<3!a (Mne)>+<1!a ("O")>+<3c>	<3!a (Mne)>+<1!a ("O")>+<3c>	<3!a (Mne)>+<1!a ("S")>+<3c>	<3!a (Mne)>+<1!a ("V")>+<3c>	<3!a (Mne)>+<1!a ("V")>+<3c>
Listed Interest Rates	LDM	<2!a ("CG")>+<8c>	<2!a ("CN")>+<8c>	<2!a ("CI")>+<8c>	<3!a ("ICN")>+<8c>	<3!a ("ICG")>+<8c>
RepoClear ^{iv}	RCL	(Not Applicable)	(Not Applicable)	(Not Applicable)	(Not Applicable)	(Not Applicable)
EquityClear ^v	ECL	(Not Applicable)	(Not Applicable)	<3!a (Mne)>+<1!a ("C")>+28c (SF ID)	2!a ("IC")	<3!a (Mne)>+<1!a ("C")>+<13c >
LSEDM	ED2	3!c (NCP Mne)	3!c (NCP Mne)	3!c (NCP Mne)	3!c (NCP Mne)	3!c (NCP Mne)

Notation	Length restrictions	
		nn maximum length
		nn! fixed length
	Types of character	a alphabetic, capital letters (A through Z), upper case only
		c alpha-numeric capital letters (upper case), and digits only
	Reference structure	<...> one element where ... represents any allowed combinations of length or character
		+ a reference structure made up of multiple elements combined together before and after the +
	Nature	(...) the nature of the reference where ... represents a value specific to the market (see below)
		"..." a fixed code where ... represents the value of the code
		Mne the Service Mnemonic
		SF ID the Settlement Firm ID
		NCP Mne the NCP Mnemonic
	Example	<2!a ("CN" OR "CG")>+<8c> fixed 2 uppercase letters, either CN or CG followed by up to 8 uppercase letters or digits

^{iv} RepoClear only supports one Client Account per Service Mnemonic, which will always have a "C" account associated with it. An additional Service Mnemonic can be created, if required.

^v EquityClear only supports one ONSA or INA per Service Mnemonic.

2.9.1 Banking Report Examples

The banking reports include both the collateral account and initial margin liability reference (for each clearing service) in the “Account” field. Multiple references are separated by forward slashes (/) and clearing service IDs are separated by hyphens (-).

Account H

Account C

“H” house and “C” client OGSA/ONSA collateral accounts are reported with the standard “H” and “C” references.

Account S123/SWP-SWWGIG004DISA

CSA collateral account “S123” is associated with SwapClear (SWP) initial margin liabilities on the account “SWWGIG004DISA”.

Account S45T/ECL-CLIENTIDDEF/LDM-CI1234ABCD

ISA collateral account “S45T” is associated with EquityClear (ECL) initial margin liabilities on the account “CLIENTIDDEF” and Listed Interest Rates (LDM) initial margin liabilities on the account “CI1234ABCD” (i.e. these accounts are for the same client, but identified differently for each clearing service).

Account OG12/FXC-ABCOG12

OGSA collateral account “OG12” is associated with ForexClear (FXC) initial margin liabilities on the account “ABCOG12”.

Account O789/LDM-CNACCTID78/ED2-ABC

ONSA collateral account “O789” is associated with Listed Interest Rates (LDM) initial margin liabilities on the account “CNABCACCTID789” and London Stock Exchange Derivative Market (ED2) initial margin liabilities on the account “ABC”.

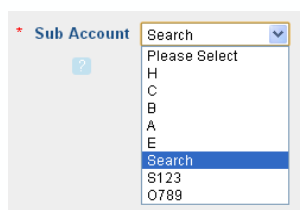
Account V963/ED2-DEF

INA collateral account “V963” is associated with London Stock Exchange Derivative Market (ED2) initial margin liabilities on the account “DEF”.

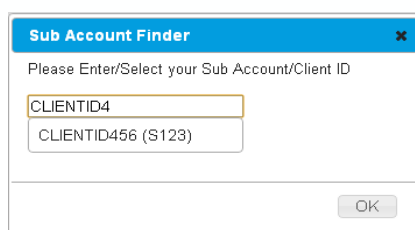
2.9.2 CMS Examples

In the CMS, Clearing Member users can search for the relevant Sub-Account based on either the collateral account or the reference used by each clearing service (which in the CMS is called the 'Client ID').

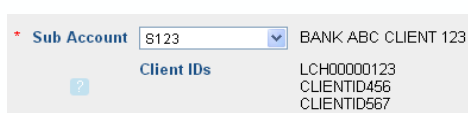
The CMS displays the collateral account in the Sub-Account field (with the 30 most recently used values available from a selection drop down list).



If using the Client ID, or a collateral account that is not displayed in the drop down list, the user can select the search option. When searching with a Client ID, the collateral account is displayed in brackets at the end.



Once selected the collateral account will be displayed in the Sub-Account field and the Client ID will be visible in the Client IDs field along with the primary Client ID (an internal LCH reference for the client) and any other Client ID's that are utilised by different clearing services.



3. Calls and Pays

LCH distinguishes between:

- A. 'IM liabilities' – The amount of an initial margin liability (where the initial margin liability will reflect any changes (positive or negative) in contingent variation margin), including any “add-ons”; and
- B. 'Cash flows' – Cash amounts, such as realised variation margin (**VM**), price alignment interest (**PAI**) and end of day coupons on cleared positions.

LCH will follow slightly different processes for making calls and pays, depending on the clearing service and account type.

3.1 ForexClear, EquityClear, LSEDM, Listed Interest Rates

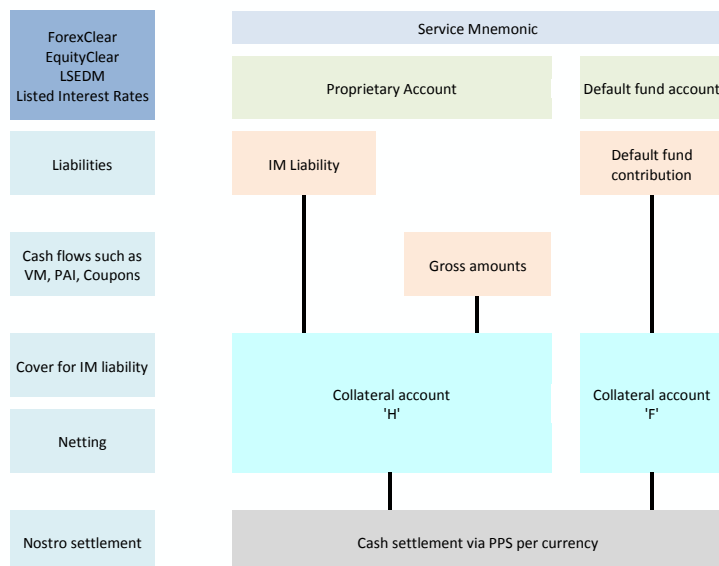
3.1.1 Proprietary Accounts

For a Clearing Member’s Proprietary Account, calls will be generated in each currency for:

- a. collateral deficits in respect of cover for initial margin liabilities, net of any cash flows, in the same currency; and
- b. cash flows in other currencies.

The Clearing Member’s default fund contributions will be collected and recorded to its “F” account on a monthly basis.

If a Clearing Member has opted into the “auto-repay” facility, then excess cash collateral on the “H” account will be repaid to the Clearing Member by the end of each business day.

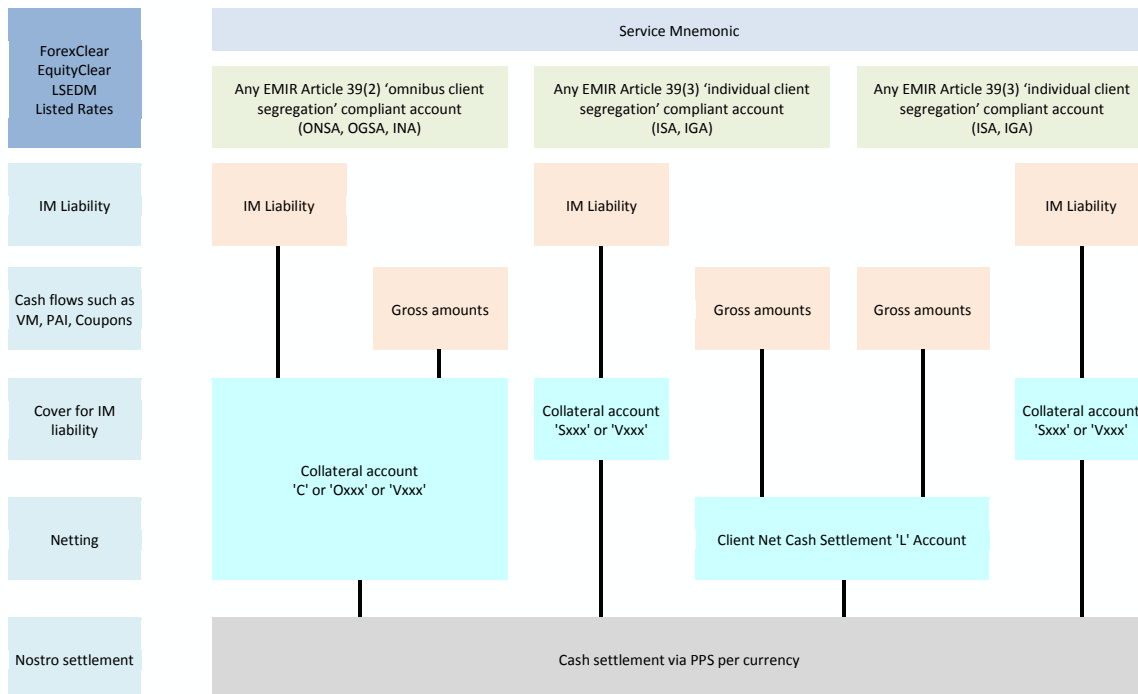


3.1.2 Client Accounts

For a Clearing Member’s Client Accounts, calls will be generated for:

- collateral deficits in respect of cover for initial margin liabilities, net of any cover cash flows, in the same currency on each ONSA, OGSA and INA;
- cash flows in other currencies on each ONSA, OGSA and INA;
- collateral deficits in respect of cover for initial margin liabilities on each ISA and IGA; and
- cash flows in respect of all ISAs and IGAs, which will be settled net via the ‘net cash settlement “L” account’ for all such accounts under the Service Mnemonic.

If the Clearing Member has opted into the “auto-repay” facility (in respect of a Client Account), then excess cash collateral on the account will be repaid to the Clearing Member by the end of each business day.



3.2 SwapClear

3.2.1 Proprietary Accounts

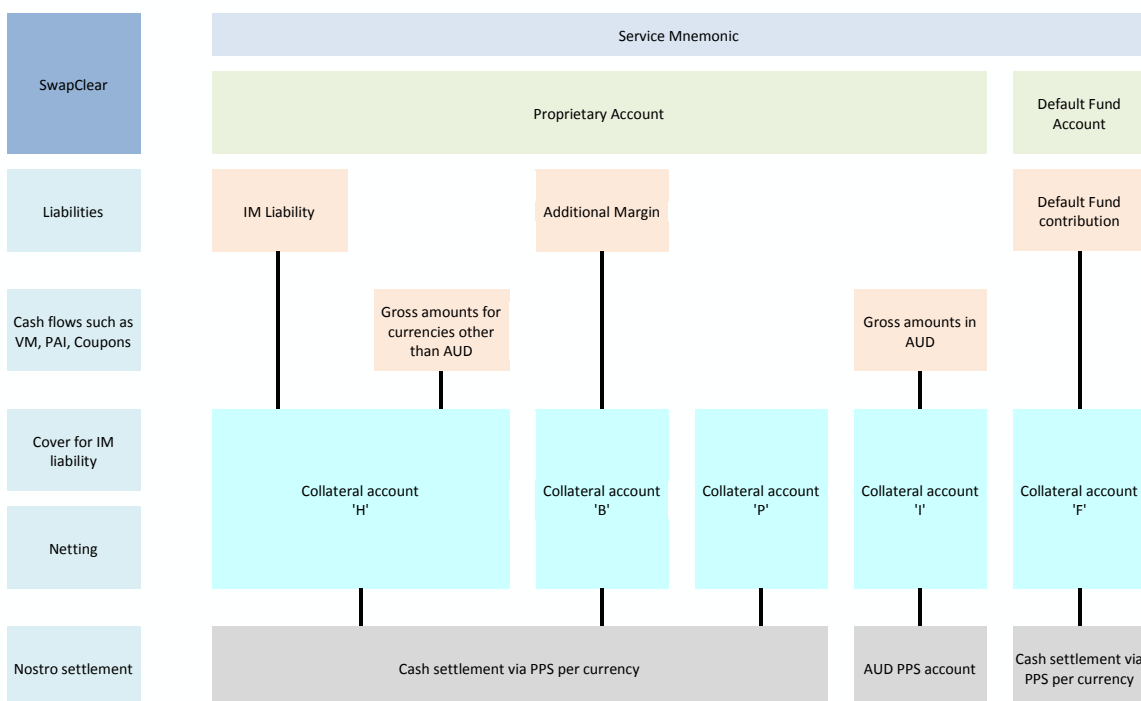
For a SwapClear Clearing Member's Proprietary Account, calls will be generated for:

- collateral deficits in respect of cover for initial margin liabilities, net of any cash flows (other than AUD cash flows), in the same currency;
- collateral deficits in respect of cover for additional margin liabilities on the 'B' collateral account; and
- cash flows in other currencies (where AUD cash flows are called via a separate 'I' account).

The Clearing Member's default fund contributions will be collected and recorded to its "F" account on a monthly basis.

If the Clearing Member has opted into the "auto-repay" facility, then excess cash collateral on the 'H' account will be repaid to the Clearing Member by the end of each business day.

The Clearing Member can also direct LCH to issue a call on its Client Buffer Account 'P'. Excess collateral on this account can then be utilised to support the registration of, or to meet any other intraday margin requirements in connection with, positions in the Clearing Member's Client Accounts.

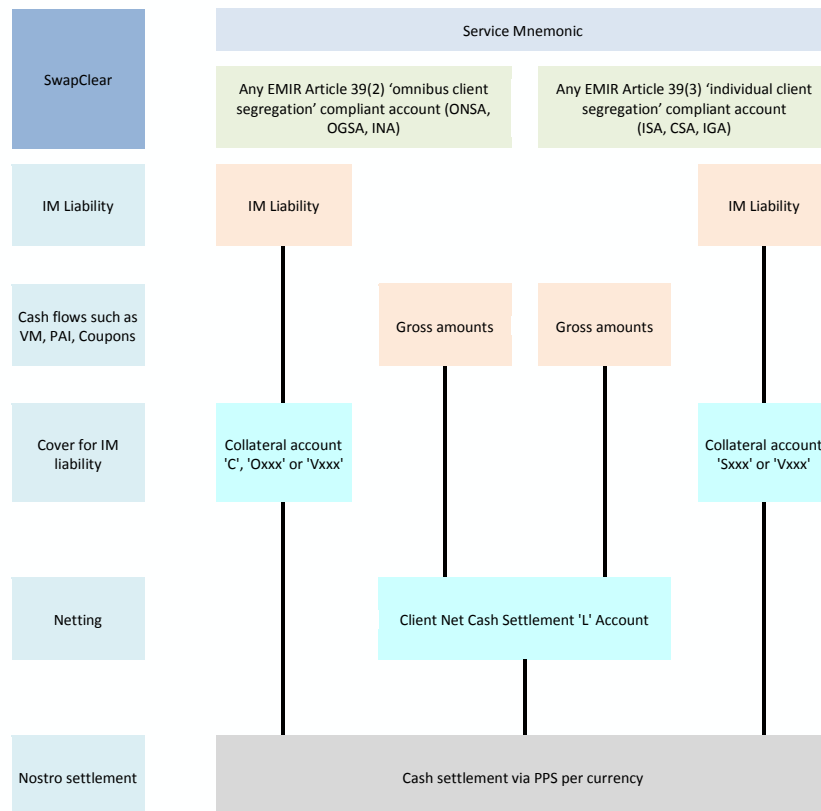


3.2.2 Client accounts

For a SwapClear Clearing Member's Client Accounts, calls will be generated for:

- a. collateral deficits in respect of cover for initial margin liabilities on each ONSA, OGSA, INA, ISA, CSA and IGA; and
- b. cash flows in respect of all Client Accounts, which will be settled net via the 'net cash settlement "L" account' for all Client Accounts under the Service Mnemonic.

If the Clearing Member has opted into the "auto-repay" facility (in respect of a Client Account), then excess cash collateral on the account will be repaid to the Clearing Member by the end of each business day.



3.3 RepoClear

3.3.1 Clearing Member and Sponsored Member Accounts

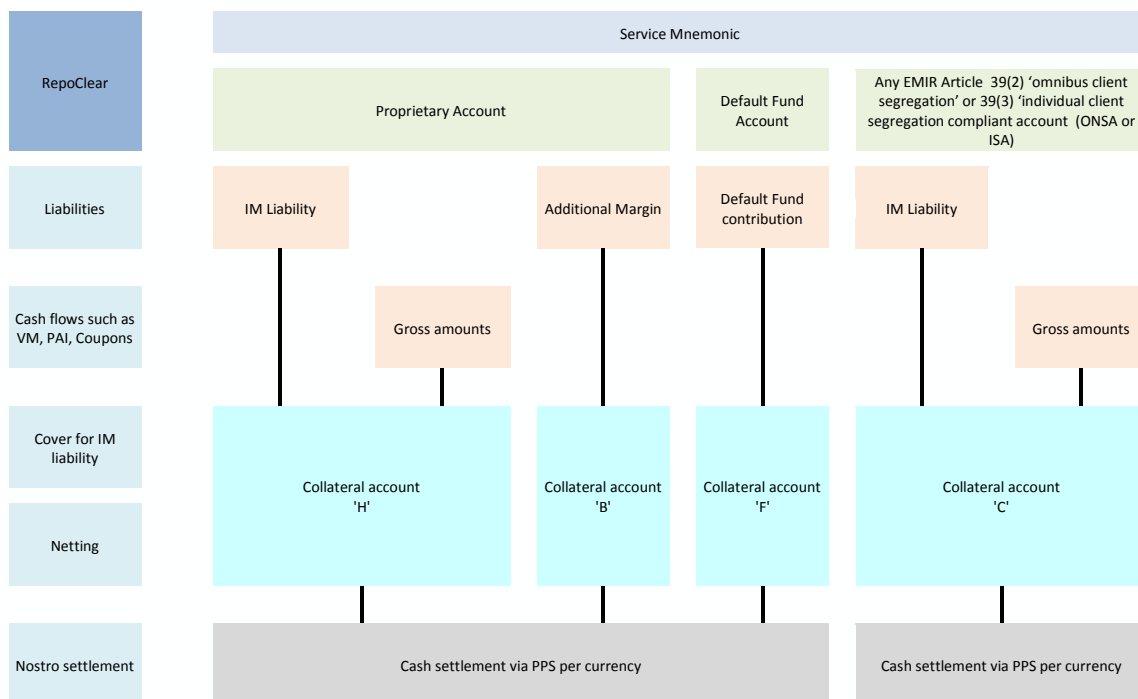
For a Clearing Member or a Sponsored Member, calls will be generated for:

- a. collateral deficits in respect of cover for initial margin liabilities, net of any cash flows, in the same currency;
- b. cash flows in other currencies; and
- c. collateral deficits in respect of cover for additional margin liabilities on the ‘B’ collateral account.

The Clearing Member’s default fund contributions will be collected and recorded to its “F” account on a monthly basis.

If a Clearing Member has opted into the “auto-repay” facility, then excess cash collateral on the ‘H’ account will be repaid to the Clearing Member by the end of each business day.

Client clearing is offered via one or more NCONSAs and/or ISAs, which Client Accounts are associated with a “C” collateral account. Where a Clearing Member wishes to open multiple NCONSAs and/or ISAs, LCH will use a separate Service Mnemonic for each such account.

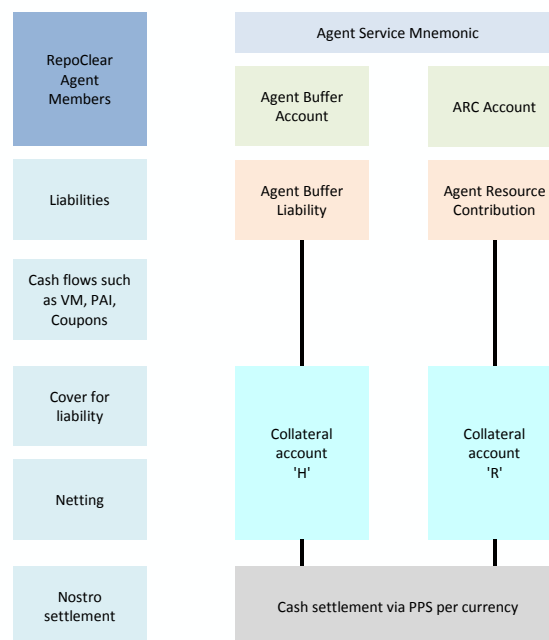


3.3.2 Agent Member Accounts

For Agent Members, calls will be generated for:

- a. collateral deficits in respect of cover for the Agent Buffer Account; and
- b. Agent Resource Contributions on a monthly basis.

The Agent Member’s default fund contributions, in respect of a Sponsored Member, will be collected and recorded to an “F” account (under a specific Sponsored Member mnemonic relating to such Agent Member) on a monthly basis.



4. Account Configuration Options

4.1 Account Preferences

It is possible for each collateral account to have different account preference configurations 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 the day;
03. what currency should be used to meet margin calls generated intraday; and
04. what email addresses should be used to notify a Clearing Member of margin calls.

When creating a collateral account, Clearing Members will be given the option to either specify these details for the new account or apply the same configuration as an existing “C” account.

4.2 Auto-Repay Functionality

LCH provides an optional facility whereby cash collateral that is identified by LCH as excess during end of day processing is automatically repaid to the Clearing Member’s PPS account the following morning. Where this facility is not enabled, in order for the Clearing Member’s excess cash collateral to be returned, it must enter a cash withdrawal instruction into the CMS prior to the deadline specified for cash withdrawals.

By default, the following accounts will have the auto-repay facility enabled or disabled as indicated, which can be changed at the Clearing Member’s discretion:

Account Type	Collateral Account	Auto-Repay
Proprietary Account	H	Enabled
Agent Buffer	H	Enabled
OGSA / ONSA	C / Oxxx	Enabled
ISA / CSA	Sxxx	Disabled
INA	Vxxx	Enabled
IGA	Vxxx	Disabled

By contrast, auto-repayment of cash balances on the following accounts is either enabled or disabled as indicated and cannot be changed by the Clearing Member:

Account Type	Collateral Account	Auto-repay
Buffer Account	B	Disabled
Client Buffer Account	P	Disabled

Net Cash Settlement	I	Enabled
Default Fund	F	Enabled
Agent Resource Contribution	R	Enabled
Net Cash Settlement	L	Enabled

4.3 PPS Accounts

A Clearing Member can designate a single PPS account per currency to be debited (called) per Sub-Account. Alternatively, it is possible to designate different PPS accounts for different currencies.

However, there is no requirement for a Clearing Member to open additional PPS accounts for additional collateral accounts; an existing PPS account may be used.

LCH will assume that the existing PPS account(s) of a Clearing Member which are associated with its existing “C” account will be used for any additional collateral accounts, unless the Clearing Member specifies otherwise (using a PPS mandate).

Likewise, by default, LCH will configure the net cash settlement “L” account to link with the PPS account(s) associated with a Clearing Member’s existing “C” collateral account, unless the Clearing Member specifies otherwise (using a PPS mandate).

4.4 Aggregate PPS Calls

LCH offers aggregation of PPS calls and pays, whilst still providing a full breakdown of individual calls and pays within the PPS aggregation detail report it provides to a Clearing Member.

A Clearing Member can request that individual calls for both new and existing collateral accounts be consolidated into one aggregate call by selecting the “PPS Aggregation” option within the PPS preferences form (e.g. a Clearing Member can elect to aggregate the call on its “C” account with the call on its “O” account, so that it only receives a single call).

PPS calls and pays will then be aggregated by PPS account and currency, thus reducing the number of individual PPS calls and pays sent to the Clearing Member’s PPS bank.

4.5 PPS Processing on Currency Holidays

Where the value date for a cash call in a certain currency falls on a currency holiday for such currency, LCH will:

01. treat the cash call as an additional initial margin liability of the relevant Clearing Member; and

02. to the extent that the Clearing Member does not have sufficient excess collateral to meet such initial margin liability, call the Clearing Member for an equivalent amount in a currency for which there is no currency holiday.

For example, if it is a GBP currency holiday, and a Clearing Member incurs a GBP debit cash liability, LCH will discharge such GBP debit cash liability and increase the Clearing Member's initial margin liability by an equivalent amount in either USD or EUR (depending on the Clearing Member's preference and whether a currency holiday applies to such currency). To the extent that the Clearing Member does not hold sufficient collateral with LCH to cover such USD or EUR initial margin liability, LCH will call an equivalent amount of either USD or EUR (as appropriate).

5. Non-Cover Cash Flows

5.1 Interest

Interest on cash balances held within a collateral account will be calculated at the prevailing rate and credited to, or debited from, the non-cover ledger of the account on a monthly basis.

Credit postings will result in a PPS pay and debit postings in a PPS call.

5.2 Accommodation charges

Accommodation charges (where applicable) on securities collateral recorded to a collateral account will be calculated at the prevailing rate and debited from the non-cover ledger of the account on a monthly basis.

Debit postings will result in a PPS call.

5.3 Coupons and Redemptions of Securities Collateral

Coupons and redemption proceeds arising in respect of securities collateral recorded to a collateral account will be credited to the non-cover ledger of the account, resulting in a PPS pay on the payment date of the coupon (for coupons) or on the maturity date (for redemptions of securities collateral).

5.4 Intraday Coupons on Cleared Positions

Where coupons on cleared positions are fixed and settled on the same day (e.g. GBP FRAs), they will be credited to, or debited from, the non-cover ledger of the relevant collateral account, resulting in a PPS call or PPS pay on the payment date of the coupon.

6. Provision of Collateral

LCH accepts a wide range of currencies and debt securities issued by high quality sovereign government issuers and certain government agencies to meet margin requirements at LCH. Please see <https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-acceptable-collateral> for further details.

6.1 Depositing Cash Collateral

A Clearing Member has the ability to deposit (pre-fund) cash collateral in its collateral accounts. It is only possible to deposit currencies that are accepted as cover for initial margin liabilities.

Cash deposits must be input via the CMS. The deposit instruction will be processed by LCH and a PPS call will be generated to debit the linked PPS account. Value dates for all deposits will default to the current value date for the currency, but a Clearing Member may override this and specify the value date occurring immediately after the current value date for the currency.

6.2 Withdrawing Cash Collateral

A Clearing Member is able to withdraw cash collateral from their collateral account, but only to the extent that such cash collateral is not currently being used as cover (i.e. excess cash collateral only).

Note: A Clearing Member that has the “auto-repay” facility enabled in respect of a Client Account does not need to request the return of excess cash collateral on such account, as this will automatically be returned the following business day when identified as excess during overnight processing.

A Clearing Member can manually request the repayment of excess cash collateral by inputting a “cash withdrawal” instruction in the CMS prior to the deadline specified for cash withdrawals.

6.3 Splitting Cash Instructions

In order to reduce the number of settlement instructions between the Clearing Member and LCH, the CMS allows the input of a single cash deposit or cash withdrawal instruction to be split to debit or credit multiple Sub-Accounts upon settlement.

That is, a Clearing Member can input a single instruction to deposit or withdraw cash for a specific currency and value date, and then specify to which accounts the resulting debits or credits are to be applied.

Currency	Value Date	Accounts	Amount
EUR	Today	S123	100,000
		S456	500,000
		O123	400,000

6.4 Provision of Securities Collateral – Bilateral

In order to lodge securities collateral with LCH, a Clearing Member must have entered into the relevant Deed of Charge and, for non-SwapClear Client Accounts, must have also provided LCH’s client consent documentation.

6.4.1 Lodging Securities Collateral

A Clearing Member may lodge eligible securities collateral via an instruction in the CMS. LCH will process such an instruction by submitting a “free of payment” instruction to the relevant CSD/custodian. The Clearing Member needs to submit a matching instruction with the relevant CSD/Custodian. Once the settlement of the securities transfer has been confirmed by the CSD/custodian, LCH will update the balance of collateral on the Clearing Member’s relevant collateral account and allow the collateral to be used as cover for liabilities on such account.

6.4.2 Releasing Securities Collateral

A Clearing Member can release securities collateral via an instruction in the CMS. LCH will ensure that the release of the securities collateral would not cause the Clearing Member’s account to have insufficient cover and will only input a matching instruction to the CSD/custodian for the release of the securities collateral upon confirmation of this. Additional collateral in the form of cash or securities may be required before the requested securities collateral can be released.

6.5 Provision of Securities Collateral – Triparty

In addition to the Deed of Charge, a Clearing Member must enter into a triparty agreement with LCH and a supported triparty agent, in order to provide securities collateral to LCH using a triparty transaction.

6.5.1 Triparty Agents

LCH currently uses the triparty agents Euroclear Bank and Clearstream.

6.5.2 Account Structure

The triparty agent will set up a unique collateral ‘giver’ account (in respect of the relevant Clearing Member) and collateral ‘taker’ account (in respect of LCH). A Clearing Member may set up more than one collateral ‘giver’ account if required.

6.5.3 Opening a Triparty Transaction

A Clearing Member can, via the CMS, instruct LCH to open a triparty transaction with a triparty agent, denominated in EUR, GBP or USD, to cover some or all of the Clearing Member’s initial margin requirements.

The Clearing Member must designate the Sub–Account to which the triparty transaction will apply. It will be possible to select a Sub-Account either by specifying the Sub-Account identifier or the Client ID identifier.

6.6 Collateral Transfers

A Clearing Member may input instructions in the CMS to move collateral between its accounts at LCH (excluding collateral held within a triparty transaction). The following rules apply to transfers of collateral:

Transfer	To House	To OGSA	To ONSA	To INA	To ISA	To CSA	To IGA
From House	Yes	Yes	Yes	Yes	Yes	Yes	Yes
From OGSA	No	No	No	No	No	No	No
From ONSA	No	No	No	No	No	No	No
From INA	No	No	No	No	No	No	No
From ISA	No	No	No	No	Yes *	Yes *	Yes**
From CSA	No	No	No	No	Yes *	Yes *	Yes **
From IGA	No	No	No	No	No	No	No

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

** Only where the IGA and the delivering ISA/CSA is opened by the same Clearing Member in respect of the same client.

6.7 CMS Message Service

6.7.1 Instructions

The CMS enables a Clearing Member to input certain instructions via SWIFT message. The CMS will support SWIFT MX (ISO 20022) messaging for:

01. Cash – deposits, transfers and withdrawals;
02. Securities – lodge, release and transfer; and
03. CustodialSeg – notification and affirmation.

These messages are sent over the SWIFT network. When properly validated by the CMS, these messages will create instructions with a status of “Instructed” in the CMS. The

“Collateral Proposal Response” message within the CMS will notify the Clearing Member whether the SWIFT message is positively acknowledged or negatively acknowledged with an appropriate error message (or, in the case of CustodialSeg instructions, allow the Clearing Member to affirm or reject a Custodial Seg instruction from a client).

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

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-collateral-management-system>

6.7.2 Reporting

The CMS also enables a Clearing Member to receive certain reports via SWIFT message, including:

01. Margin call notification via MX Col.003 margin call notification message;
02. Cash reconciliation via MT950 cash statement message;
03. Securities reconciliation via MT535 statement of holding message;
04. CustodialSeg status updates via MT558 triparty status messages; and
05. CustodialSeg statements via MT569 triparty statement messages.

Additionally, the CMS enables certain reports to be sent via SWIFT message to a Clearing Member’s client or the client’s custodian or collateral manager:

01. Margin call notification via MX Col.003 margin call notification message;
02. Cash reconciliation via MT950 cash statement message; and
03. Securities reconciliation via MT535 statement of holding message.

7. Securities Settlement Systems and Custodians

LCH holds securities collateral in accounts with selected securities settlement systems or, where a securities settlement system is not available, with a custodian. A list of the securities settlement system and custodians where collateral is held can be found here:

<https://www.lch.com/risk-collateral-management/ltd-collateral-management/ltd-acceptable-collateral/ltd-acceptable>

8. Clearing Member Default - Porting

8.1 Overview

If a Clearing Member defaults, a client of such Clearing Member who wishes to port positions and collateral recorded to a Client Account should contact LCH to initiate the porting process. Instructions and contact details will be posted in a notice on the LCH website at the point of the Clearing Member default.

It is LCH's view that a client is more likely to achieve a successful port if they have appointed a back-up Clearing Member prior to the default of their primary Clearing Member. It is possible for a client to appoint multiple back-up Clearing Members across different clearing services.

The porting process, including order and timing, will be managed by the individual clearing services in accordance with the LCH Rulebook. Each clearing service has detailed default management procedures which it will follow if a Clearing Member defaults.

8.2 CSA

Successful porting will be achieved if:

- the client has appointed a back-up Clearing Member;
- the client and the back-up Clearing Member each consent (in the form specified by LCH) to the port of the positions recorded to the CSA to either (a) another CSA which the back-up Clearing Member has opened in respect of the client, or (b) an ISA which the back-up Clearing Member has opened in respect of the client; and
- all necessary documentation has been signed by the client and back-up Clearing Member.

8.3 ISA

Successful porting will be achieved if:

- the client has appointed a back-up Clearing Member;
- the client and the back-up Clearing Member each consent (in the form specified by LCH) to the port of the positions recorded to the ISA to the back-up Clearing Member; and
- all necessary documentation has been signed by the client and back-up Clearing Member.

8.4 OGSA

Successful porting will be achieved, in respect of a client within an OGSA who is not a Combined Omnibus Gross Segregated Clearing Client, if:

- the client has appointed a back-up Clearing Member;
- the client and the back-up Clearing Member each consent (in the form specified by LCH) to the port of the positions recorded to the OGSA which are attributable to the client, to the back-up Clearing Member; and
- all necessary documentation has been signed by the client and back-up Clearing Member.

Successful porting will be achieved, in respect of clients grouped together within an OGSA who are each a Combined Omnibus Gross Segregated Clearing Client, if:

- the clients have appointed the same back-up Clearing Member;
- the clients and the back-up Clearing Member each consent (in the form specified by LCH) to the port of the positions recorded to the OGSA which are attributable to the clients, to the back-up Clearing Member; and
- all necessary documentation has been signed by the clients and back-up Clearing Member.

8.5 ICONSA

Successful porting will be achieved if:

- the clients within the ICONSA have appointed the same back-up Clearing Member;
- the clients and the back-up Clearing Member each consent (in the form specified by LCH) to the port of the positions recorded to the ICONSA to the same back-up Clearing Member; and
- all necessary documentation has been signed by the clients and back-up Clearing Member.

8.6 ACONSA

Successful porting will be achieved if:

- the clients within the ACONSA have appointed the same back-up Clearing Member;

- the clients and the back-up Clearing Member each consent (in the form specified by LCH) to the port of the positions recorded to the ACONSA to the same back-up Clearing Member; and
- all necessary documentation has been signed by the clients and back-up Clearing Member.

8.7 NCONSA

LCH does not know the identity of the clients within this account and will, at the point of default of a Clearing Member who is an Exempt Client Clearing Member, seek to determine the identity of such clients.

If successful, LCH would seek to port the positions recorded to the account in the same manner as an ICONSA.

If unsuccessful, LCH would liquidate the collateral recorded to the account and return the proceeds, less any amounts owing on the account, to the administrators of the Clearing Member for the account of the clients.

8.8 INA

LCH does not know the identity of the clients within this account and will, at the point of default of a Clearing Member who is an Exempt Client Clearing Member, seek to determine the identity of such clients.

If successful, LCH would seek to port the positions recorded to the account in the same manner as an ICONSA.

If unsuccessful, LCH would liquidate the collateral recorded to the account and return the proceeds, less any amounts owing on the account, to the administrators of the Clearing Member for the account of the clients.

8.9 IGA

Porting will follow the same procedure as for an ISA. That is, successful porting will be achieved if:

- the (direct) client has appointed a back-up Clearing Member;
- the (direct) client and the back-up Clearing Member each consent (in the form specified by LCH) to the port of the positions recorded to the IGA to the back-up Clearing Member; and
- all necessary documentation has been signed by the (direct) client and back-up Clearing Member.