# Default Management Process

LCH SA

December 2024





# LCH SA Risk Management - Default Management Framework

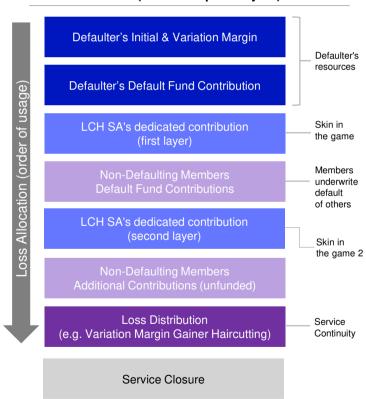
• LCH SA implemented robust and comprehensive defences to manage and mitigate all the risks related to the Clearing Member default, with standards set as per Board approved Risk Policies.

		Lines of Defence in a Default Scer	nario	
1. Membership standards	2. Variation margin (VM)	3. Total margin (IM+AM)	4. Default fund	5. Other available financial resources
<ul> <li>LCH SA applies rigorous membership criteria</li> <li>Minimum capitalisation, financial strength, operational capabilities, regulatory oversight</li> <li>Clearing Members are monitored to ensure they meet standards on an ongoing basis</li> </ul>	<ul> <li>LCH SA marks positions to market and calls Variation Margins on a frequent basis</li> <li>LCH SA calls margins on Clearing Members to cover any shortfall in respect of their account structure</li> </ul>	<ul> <li>LCH SA collects initial margin (IM) to cover potential adverse market mid-price moves in defaulter's portfolio</li> <li>The amount of IM required will scale up with increasing position size with respect to procyclicality</li> <li>Additional margins (AM) are charged to cover other exit costs such as large concentrated positions</li> </ul>	<ul> <li>LCH SA holds additional funds in case of insufficient defaulter's demutualized resources</li> <li>The default funds are mutualised resources funded by the Clearing Members (by Service)</li> <li>Default fund sizing is performed leveraging on stress assumptions</li> </ul>	Ο, I
		Risk Management Framework (critic	al tools)	
	Valuation models Market data sources	Initial margin models Additional margin models	Stress testing framework	Loss allocation tools
The framework is underning	and by a comprehensive logistics	ol 'Default Management Process' (DMP		

- The framework is underpinned by a comprehensive logistical 'Default Management Process' (DMP).
- Procedures are regularly tested through 'Fire Drill' exercises to ensure Default Management Process (DMP) capabilities are well-maintained.

# Focus on LCH SA's Default Waterfall & Fire Drill exercise

### Default Waterfall (loss absorption layers)\*



### \* LCH SA Default Waterfall by Service

### Fire Drill exercise

- Default Management Fire Drills aim to test the Default Management Process and ensure LCH SA readiness to manage a Member default
- LCH SA conducts an overall Fire Drill on an annual basis:
  - The entire default management process is tested across multiple markets
  - Participation of external stakeholders (e.g. clearing members, external auction bidders, national competent authorities as observers...)
  - Test LCH SA's ability to continue critical business activities in a default situation
- Every quarter, Services test/review the default procedures and/or default rules

# Default Management Process (DMP)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Pre-Default	Default Declaration	Stabilisation and Close-Out Preparation	Hedging & Pre-Liquidation	Liquidation and/or Transfer	Post Liquidation
<ul> <li>Analyse the situation</li> <li>Activate the relevant pre-default procedure (additional margin, deeper analysis, discussion with regulators)</li> </ul>	<ul> <li>Determine that a default has occurred (LCHSA management)</li> <li>Notify Members and Clients</li> <li>Publish default notices on LCH SA's Website</li> <li>Convene Default Management Group (DMG)</li> </ul>	<ul> <li>Suspend further trading with the defaulter</li> <li>Assess the potential exposures (losses) that LCH SA has assumed</li> </ul>	Depending on clearing services (RepoClear SA and CDSClear SA):  DMG to discuss the liquidation strategy  LCH SA to apply macrohedging or pre-liquidation strategy on non-transferable accounts  In parallel, liquidation of non-cash euros collateral	<ul> <li>Transfer client portfolios to alternate Clearing Member if condition are met</li> <li>Submit for auction defaulter' portfolios (s) (mandatory bidding for CDSClear, direct purchase for Repoclear SA)</li> <li>Notify winning bidders of each auction and transfer them the portfolio of trades</li> </ul>	<ul> <li>Juniorization of default fund contribution (if applicable) and assessment of the default waterfall resources (if required)</li> <li>Reconciliation of the P&amp;L with operations and finance</li> </ul>



# **Default Management Process**

Focus on phases 1 & 2

### Phase 2 Phase 3 Phase 5 Phase 6 Phase 1 Phase 4 Pre-Default Default Declaration Post Liquidat Close-Out Preparati Juniorization of default Analyse the situation Suspend further trading with Transfer client portfolios to occurred (LCHSA the defaulter (RepoClear SA and CDSClear alternate Clearing Member if fund contribution (if Activate the relevant management) condition are met applicable) and pre-default procedure Assess the notential assessment of the exposures (losses) that LCH . DMG to discuss the liquidation Submit for auction defaulter (additional margin Notify Members and Client default waterfall SA has assumed strategy portfolios (s) (mandatory deeper analysis. Dublish default notices on resources (if required) bidding for CDSClear, direct discussion with LCH SA to apply macro-I CH SA's Website purchase for Repoclear SA) Deconciliation of the hedging or pre-liquidation Convene Default P&I with operations Notify winning bidders of each strategy on non-transferable Management Group (DMG) and finance auction and transfer them the portfolio of trades . In parallel, liquidation of non-

### Phase 1

### **Pre-Default**

- Assessment and likelihood of a Clearing Member default is part of the daily risk monitoring
- If a potential default is identified, all relevant stakeholders are warned, the CRO activates the Default Crisis Management Team (DCMT), and a pre-default meeting may be convened
- Primary objective of this phase is to collect all required information to assess the situation and make all the preparations needed so that, if required, the declaration of default and assembly of the DMG(s) can be conducted swiftly and efficiently.

### **Causes of Default**

 LCH SA can declare a Clearing Member in default in case of occurrence of an Event of Default (Contractual Event of Default or Insolvency Event of Default as defined in the clearing rules).

### Phase 2

### **Default Declaration**

- The CCP's CEO (or CRO as delegate) has the authority to declare a Clearing Member into default based on consultation with the Default Crisis Management Team (DCMT)
- The following main actions are undertaken immediately after the default declaration:
  - ✓ Notify the defaulting clearing member of the decision of LCH SA to declare an
    event of default
  - ✓ Deactivate the defaulting Member's access to any LCH SA system(s)
  - ✓ Convene Default Management Group (DMG)
  - ✓ Contact relevant third parties
  - ✓ Notify or inform any relevant regulator

# Default Crisis Management Team (DCMT)

- DCMT comprises internal LCH SA members and oversees the default management strategy and processes for each clearing service (RepoClear SA and CDSClear SA)
- The DCMT is composed of:
  - Decision Maker(s) DCMT Meeting Chair(s)
  - · Default coordinator
  - DCMT Secretary
  - Representative(s) of Relevant DMG (Business Heads and First Line Risk Heads or nominated delegate)
  - · Support Functions as required

# **Default Management Process**

Focus on phases 3, 4 & 5

Phase 2 Phase 3 Phase 4 Phase 5 Phase 6 Phase 1 **Default Declaration** Post Liquidatio Pre Default Close-Out Preparation Analyse the situation Suspend further trading with Transfer client portfolios to Juniorization of defaul occurred (LCHSA the defaulter (RepoClear SA and CDSClear alternate Clearing Member if fund contribution (if Activate the relevant management) condition are met applicable) and pre-default procedure Assess the notential assessment of the exposures (losses) that LCH . DMG to discuss the liquidation Submit for auction defaulter (additional margin Notify Members and Client default waterfall SA has assumed portfolios (s) (mandatory deeper analysis. strategy Publish default notices on resources (if required) bidding for CDSClear, direct discussion with LCH SA to apply macro-I CH SA's Website purchase for Repoclear SA) Deconciliation of the hedging or pre-liquidation Convene Default P&I with operations Notify winning bidders of each strategy on non-transferable Management Group (DMG and finance accounts auction and transfer them the portfolio of trades In parallel, liquidation of noncash euros collatera

### Phase 3

### **Stabilisation and Close-Out Preparation**

Primary objective is to stabilise the situation by:

- Ensuring that further trades are no longer cleared
- Assessing the potential exposures (losses) that LCH SA may support

### Key activities:

 Determine the defaulting Clearing Member's assets and liabilities as well as LCH SA's risk and liquidity exposures

### Phase 4

### **Hedging & Pre-Liquidation**

Primary objective is the execution of hedging trades in order to neutralise as much as possible the market risk of the defaulter's portfolio in consultation of DMG (internal/external depending on service)

Key activities of the DMG:

- Determine the hedging strategy
- Determine the wind down strategy (hold auction and/or liquidate the remaining positions)
- Determine the liquidity management strategy
- Monitor the P&L

The strategies listed above should be communicated to the DCMT and authorisations sought, where appropriate

### Phase 5

### **Liquidation and/or Transfer**

Primary objective is to close out residual positions of the defaulting clearing member

The close out scenario can be a combination of client transfer and/or liquidation methods (broker or auction) depending on the portfolio the relevant market conditions and the LCH SA's clearing service

Key activities performed by LCH SA:

- Send positions to brokers / organise the auction process
- Manage the transfer of segregated clients' positions and collateral to their back-up clearing members if any
- Maintain ongoing performance of LCH SA's obligations vis-à-vis all other Clearing Members



## Focus on DMG - CDSClear SA Service

### **Preparation of Analysis and Default Hedging process Auction process DMG Activation** decision making environment • Portfolios' analysis DMG recommendation • Quotes' request from • Defaulting member's Default's declaration during the DMG upon the package deactivation participants during Crisis management (transfer or liquidation) offered for auction DMG (counterparty is not team's escalation authorised anymore to Hedging strategy Auction process • LCH SA acceptation clear new trades) Convene DMG proposal organisation and confirmation of · Collateral freeze and new trades • Strategy submission to • DMG guidance on non-cash collateral DCMT for approval auction process New trades liquidation (subject to booking/reception Portfolio transfer to obtaining the winning participant(s) necessary prior approvals if relevant) Potential juniorization/ forced allocation in case of absence/bad bid



# Focus on DMG - RepoClear SA Service

### **Preparation of Analysis and Hedging process Auction process DMG Activation Default** decision making environment Portfolios' analysis · Portfolios' submission · Hedging trades' Default's declaration • Defaulting member's for the remaining during the DMG submission to the deactivation (not Crisis management positions to the authorised anymore to selected members Liquidation strategy team's escalation selected members clear new trades) proposal (hedging · Members' bid Convene DMG and/or auctions) Members' selection submission · Collateral freeze and and bids submission non-cash collateral Additional members for Executing members' liquidation the bidding may be · Winning members' selection and selection and proposed by DMG notification and trade notification and trade booking Strategy submission to booking DCMT for approval



# Focus on Collateral & Liquidity Management (CaLM)

There are number of areas to consider from a CaLM perspective during a Member's default, two important of them are:

### 1. Liquidity

The LCH CaLM function is responsible for ensuring LCH SA has enough liquidity to meet its obligations throughout the default management process.

This includes providing enough cash to cover settlements and variation margin (VM) payments from the day of default until the auction process is complete. Additionally, CaLM is responsible for funding new hedge positions as they are established to facilitate the auction process.

### 2. Collateral

When a Member defaults, LCH SA is able to use that Member's collateral to cover the losses incurred in closing out the Member's portfolio

Non-cash collateral therefore need to be sold to generate cash – this is done via an auction process similar to the one used in the close-out of Member positions in the RepoClear service.



# Default Management Process Focus on phase 6

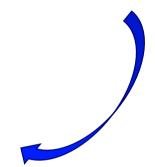
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### Phase 6

### **Post Liquidation**

The primary objective of this phase is to estimate the liquidation P&L impact Key activities performed by LCH SA

- Determine final global P&L, costs and fees relating to the handling of the default
- Use the different financial resources of the default waterfall to cover losses linked to the default
- Return unused collateral to the defaulted Clearing Member or known clients where relevant





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