

# LCH SA

## CRR2 Pillar 3 Disclosure Report

For the year ended 31 December 2022



Table of Contents

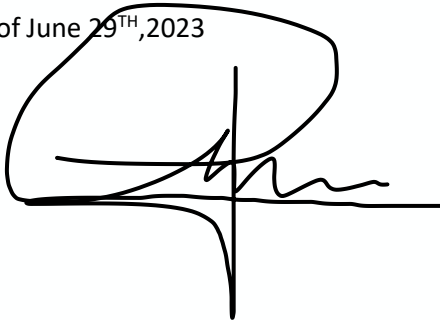
<b>AFFIRMATION LETTER</b> .....	3
<b>1. INTRODUCTION</b> .....	4
1.1 Disclosure of key metrics and overview of risk-weighted exposure amounts.....	4
1.2 Presentation of LCH SA .....	6
1.3 CRR2 overview .....	7
1.4 Scope of application .....	9
1.5 Risk governance .....	9
1.6 Basel risk types & coverage .....	14
<b>2. OWN FUNDS: COMPOSITION OF REGULATORY CAPITAL</b> .....	18
<b>3. CAPITAL REQUIREMENTS</b> .....	19
<b>4. CREDIT RISK</b> .....	20
<b>5. MARKET RISK</b> .....	23
<b>6. OPERATIONAL RISK</b> .....	24
<b>7. UNENCUMBERED ASSETS</b> .....	24
<b>8. LIQUIDITY COVERAGE RATIO</b> .....	25
<b>9. REMUNERATION POLICY</b> .....	28
<b>10. LEVERAGE RATIO</b> .....	34

## AFFIRMATION LETTER

I, Stephane Jouin, Chief Financial Officer of LCH SA, hereby attest that the information presented in this report has been established while ensuring that the information is accurate and provides a comprehensive view of LCH risk profile. The report has been reviewed and validated by the LCH SA Audit Committee on June 28<sup>th</sup>, 2023.

This Pillar III communication has been established based on the periodical supervisory reporting which are produced and submitted to the authorities in accordance with regulation (EU) 2021/451 and in compliance with prudential requirements and methodologies established by regulation (EU) 575/2013 as amended.

Paris as of June 29<sup>th</sup>, 2023

A handwritten signature in black ink, appearing to be 'S. Jouin', written over a horizontal line. The signature is stylized and includes a large loop at the top left.

# 1. INTRODUCTION

## 1.1 Disclosure of key metrics and overview of risk-weighted exposure amounts

The following table, as stated by EBA ITS, discloses regulatory ratios and indicators to which LCH SA is eligible. LCH SA has not been required to produce neither the Leverage Ratio nor Net Stable Funding Ratio since CRR2 application, on June 28<sup>th</sup> 2021.

- Leverage Ratio

Art (62) As recommended by EBA, the European Supervisory Authority (European Securities and Markets Authority) (ESMA) established by Regulation (EU) No 1095/2010 of the European Parliament and of the Council (11) and the European Central Bank, CCPs, due to their distinct business model, should be exempted from the leverage ratio requirement, because they are required to obtain a banking licence simply for the reason of being granted access to overnight central bank facilities and to fulfil their roles as key vehicles for the achievement of important political and regulatory objectives in the financial sector.

- NSFR

According to point (a) of Article 6 (4) (a) CRR, institutions authorized as CCPs according to Article 14 Regulation (EU) No 648/2012 (EMIR) are exempted from the Net Stable Funding Ratio (NSFR) on an individual basis.

Figures exhibited are sourced from regulatory reporting as of December 31.2022 and previous quarterly returns.

Table 1: Key metrics of LCH SA as of 31.12.2022

<i>In thousands of euros</i>	<b>31/12/2022</b>	<b>30/09/2022</b>	<b>30/06/2022</b>	<b>31/03/2022</b>	<b>31/12/2021</b>
<b>Available own funds (amounts)</b>					
Common Equity Tier 1 (CET1) capital	223,307 €	214,069 €	210,810 €	217,816 €	169,305 €
Tier 1 capital	223,307 €	214,069 €	210,810 €	217,816 €	169,305 €
Total capital	223,307 €	214,069 €	210,810 €	217,816 €	169,305 €
<b>Risk-weighted exposure amounts</b>					
Total risk-weighted exposure amount	580,830 €	578,483 €	584,532 €	561,909 €	498,882 €
<b>Capital ratios (as a percentage of risk-weighted exposure amount)</b>					
Common Equity Tier 1 ratio (%)	38.45%	37.01%	36.06%	38.76%	33.94%
Tier 1 ratio (%)	38.45%	37.01%	36.06%	38.76%	33.94%
<b>Total capital ratio (%)</b>	<b>38.45%</b>	<b>37.01%</b>	<b>36.06%</b>	<b>38.76%</b>	<b>33.94%</b>
<b>Additional own funds requirements based on SREP (as a percentage of risk-weighted exposure amount)</b>					
Total SREP own funds requirements (%)	0%	0%	0%	0%	0%
<b>Combined buffer requirement (as a percentage of risk-weighted exposure amount)</b>					
Capital conservation buffer (%)	2.50%	2.50%	2.50%	2.50%	2.50%
Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)	0%	0%	0%	0%	0%
Institution specific countercyclical capital buffer (%)	0%	0%	0%	0%	0%
Systemic risk buffer (%)	0%	0%	0%	0%	0%
<b>Global Systemically Important Institution buffer (%)</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
Other Systemically Important Institution buffer	0%	0%	0%	0%	0%
Combined buffer requirement (%)	2.50%	2.50%	2.50%	2.50%	2.50%
<b>Overall capital requirements (%)</b>	<b>10.50%</b>	<b>10.50%</b>	<b>10.50%</b>	<b>10.50%</b>	<b>10.50%</b>
<b>Liquidity Coverage Ratio</b>					
<b>Total high-quality liquid assets (HQLA) (Weighted value - average)</b>	<b>35,090,945 €</b>	<b>38,459,474 €</b>	<b>35,798,173 €</b>	<b>37,711,609 €</b>	<b>36,024,993 €</b>
Cash outflows - Total weighted value	33,668,170 €	34,850,874 €	35,534,516 €	34,647,171 €	32,157,549 €
Cash inflows - Total weighted value	6,795,124 €	5,859,022 €	7,147,300 €	5,533,991 €	5,005,319 €
<b>Total net cash outflows (adjusted value)</b>	<b>26,873,046 €</b>	<b>28,991,851 €</b>	<b>28,387,216 €</b>	<b>29,113,180 €</b>	<b>27,152,230 €</b>
<b>Liquidity coverage ratio (%)</b>	<b>130.58%</b>	<b>132.66%</b>	<b>126.11%</b>	<b>129.53%</b>	<b>132.68%</b>

## 1.2 Presentation of LCH SA

The Banque Centrale de Compensation, known under its commercial name “LCH SA” is a Clearing House owned by LCH Group Holdings Ltd (88.9%) and Euronext (11.1%), LCH Group Holdings Ltd is majority owned (82.6%) by the London Stock Exchange Group (LSEG).

LCH SA is located in Paris and is regulated in the following manner:

- Authorized as a central counterparty to offer services and activities in the Union in accordance with the European Markets Infrastructure Regulation (EMIR). As a Clearing House it is regulated by the French Authorities, L'Autorité des Marchés Financiers (AMF), L'Autorité de Contrôle Prudentiel et de Résolution (ACPR), and Banque de France. It is also supervised by a college of 18 European regulators (Emir College) plus ESMA.
- Registered as Credit Institution. As such, it is directly regulated by ACPR and indirectly supervised by the ECB.
- Registered as a Derivatives Clearing Organization with the Commodity Futures Trading Commission (CFTC), USA for its CDS business.
- Registered as a Clearing Agency with the Securities Exchange Commission (SEC), USA since December 29th, 2016.
- Recognised as a foreign central counterparty by the Swiss Financial Market Supervisory Authority (FINMA) in May 2017.
- Designated as a Securities and Settlement System by the French Authorities to the European Commission
- Authorised by the Japan Financial Services Agency (JFSA) as a foreign clearing organization operation in France to engage in the business equivalent to financial instruments obligation.
- Exempted from the requirement to be recognized as a Clearing Agency/House by both Ontario Securities Commission (OSC) and Autorité des Marchés financiers Québec (AMF Québec) (November 2019)
- LCH SA has entered the Bank of England (BoE) Temporary Recognition Regime (TRR) for 4 years as of 31/12/2020 in order to continue to offer clearing services to its UK members.
- Oversight by other regulators in jurisdictions in which business is carried out.

The list of LCH regulators can be found on LCH's website [Company Structure | LCH Group](#).

LCH SA also has a branch in Amsterdam and a representative office in Porto. This international presence means that LCH SA is subject to additional regulatory supervision by the banking authority of The Netherlands.

LCH SA is subject to Basel III requirements on a standalone basis. This Pillar 3 disclosure document covers the disclosures of LCH SA.

### **1.3 CRR2 overview**

Since January 2014, LCH has been applying the new Basel 3 Regulation implemented in the European Union via a directive (CRD4) and a regulation (CRR). The general framework defined by Basel 3 is structured around three pillars:

- Pillar 1 sets the minimum solvency requirements and defines the rules that banks must use to measure risks and calculate the related capital requirements, according to standard or more advanced methods.
- Pillar 2 concerns the discretionary supervision implemented by the competent authority, which allows them – based on a constant dialogue with supervised credit institutions – to assess the adequacy of capital requirements as calculated under Pillar 1, and to calibrate additional capital requirements taking into account all the risks to which these institutions are exposed.
- Pillar 3 encourages market discipline by developing a set of qualitative or quantitative disclosure requirements which will allow market participants to better assess a given institution's capital, risk exposure, risk assessment processes and, accordingly, capital adequacy.

In terms of capital, the main measures introduced to strengthen banks' solvency were as follows: - the complete revision and harmonization of the definition of capital, in particular with the amendment of the deduction rules, the definition of a standardized Common Equity Tier 1 (or CET1) ratio, and new Tier 1 capital eligibility criteria for hybrid securities.

- The new capital requirements for the counterparty risk of market transactions, to factor in the risk of a change in CVA (Credit Valuation Adjustment) and to hedge exposures on the central counterparties (CCP);
- the set-up of capital buffers that can be mobilized to absorb losses in case of difficulties. The new rules require banks to create a conservation buffer and a countercyclical buffer to preserve their solvency in the event of adverse conditions. Moreover, an additional buffer is required for systemically important banks.;
- the set-up of restrictions on distributions relating to dividends (MDA - Maximum Distributable Amount), AT1 instruments and variable remuneration.

In addition to these measures, there will be measures to contain the size and, consequently, the use of excessive leverage. To this end, the Basel Committee has defined a leverage ratio, for which the definitive regulations were published in January 2014, and included in the Commission's

Delegated Regulation (EU) 2015/62. The leverage ratio compares the bank's Tier 1 capital to the balance sheet and off-balance sheet items, with restatements for derivatives and pensions. Banks have been required to publish this ratio since 2015.

Moreover, some amendments to the European regulatory legislation have been adopted in May 2019 (CRR2/CRD5). Most of the new provisions apply since June 2021. The new provisions concern the following aspects:

- NSFR: introduction of a new requirement on long-term funding (not applicable for LCH SA, as a CCP, in accordance with article 6(4) of CRR);
- Leverage ratio: a 3% minimum requirement plus an additional 50% buffer for the systemic entities; as banking-licensed CCP, LCH will be exempted from Leverage ratio from June 28, 2021 – art 6 of 2019/876 rules.
- Counterparty derivatives risk: the Basel method "SA-CCR" replaces the current "CEM" method to calculate the prudential exposure to derivatives using the Standardized approach.
- large exposures: the main change concerns the calculation of the Tier 1 regulatory limit (25%, instead of total capital), as well as the introduction of a cross-specific limit on systemic institutions (15%);
- TLAC: The ratio requirement for G-SIBs is introduced in CRR. According to the Basel text, the G-SIBs must have an amount of eligible capital and debt equal to the highest between 16% plus risk-weighted capital buffers and 6% of the leverage exposure in 2019, the ratio increasing to 18% plus risk-weighted cushions and 6.75% leverage in 2022 not applicable for LCH SA which is not a G-SIBs).

Regarding the implementation of market risk reform (FRTB), after the publication in January 2016 of the first revised standard and of Consultation in March 2018 on this subject, the Basel Committee published in January 2019 its final text: BCBS457. According to its previous publications, the Basel Committee confirms its implementation schedule (which does not challenge the European Union calendar below, with an entry into force no later than 1 January 2022).

As a reminder, in Europe, the CRR2 calendar has applied as follows:

- First, the FRTB reform came into force as a disclosure requirement (September 2021 for the Standardized approach and 2023 for the IMA);
- FRTB's own funds requirements will then become mandatory in the coming CRR3 package (not before 2023).

In December 2017, the Group of Central Bank Governors, and Heads of Supervision (GHOS), the Basel Committee's oversight body, endorsed the last Basel 3 regulatory reforms. These new rules will take effect from 2022 with an overall output floor: the RWA will be floored to a percentage of the Standardized method (credit, market and operational). The output floor level will increase



gradually, from 50% in 2022 to 72.5% in 2027. LCH SA applies the standard method to value credit, market and operational risks so impacts of the new rules will be strictly limited.

Throughout 2022, LCH SA complied with the minimum ratio requirements applicable to its activities.

### 1.4 Scope of application

The LCH Group structure is set out in the below chart on a simplified manner:

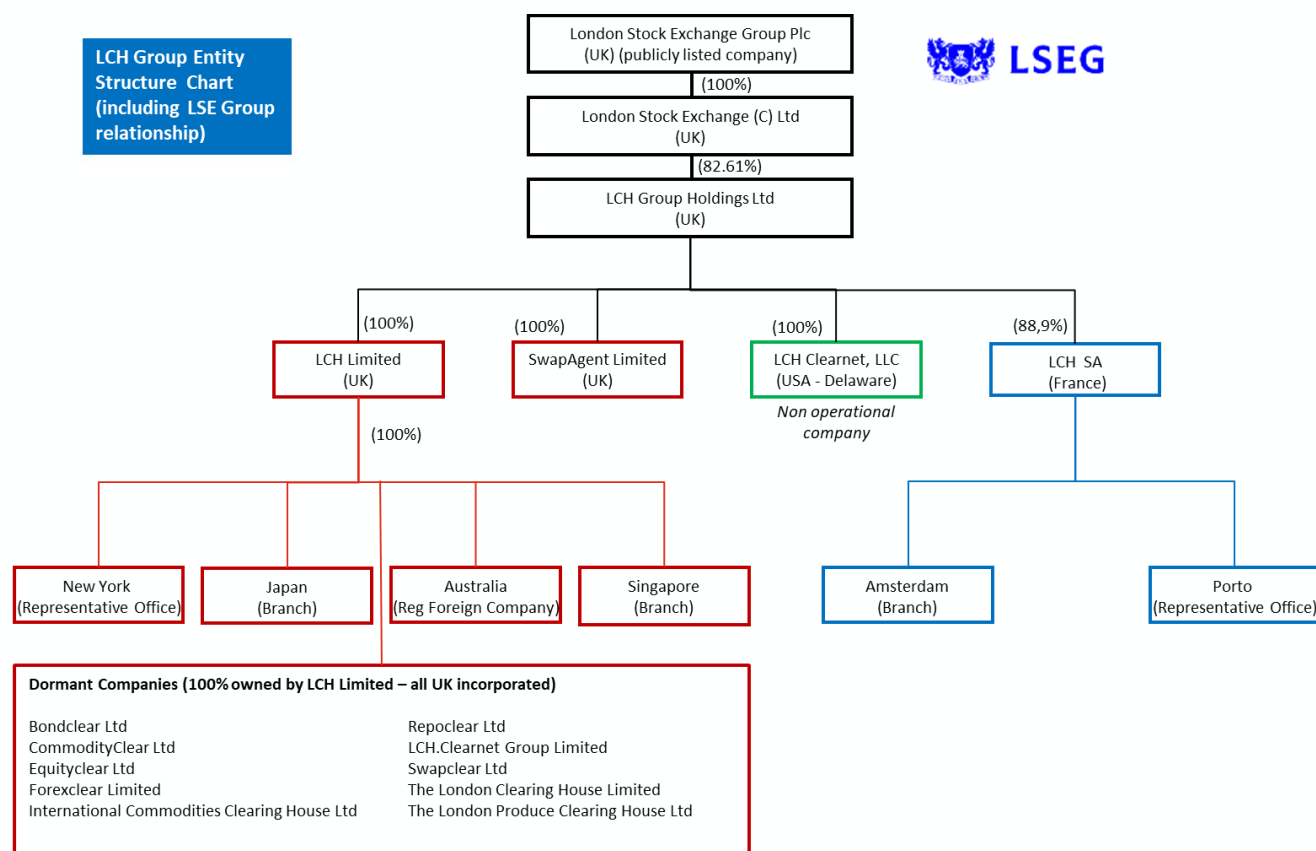


Table 2 LCH Group entity structure chart

LCH SA is hold by LCH Group Holdings Ltd for 88.9% which itself belongs to LSEG for 82.61%. Euronext owns the remaining part of capital of SA, for 11.1%.

Dormant companies are not disclosed.

### 1.5 Risk governance

#### Governance structure

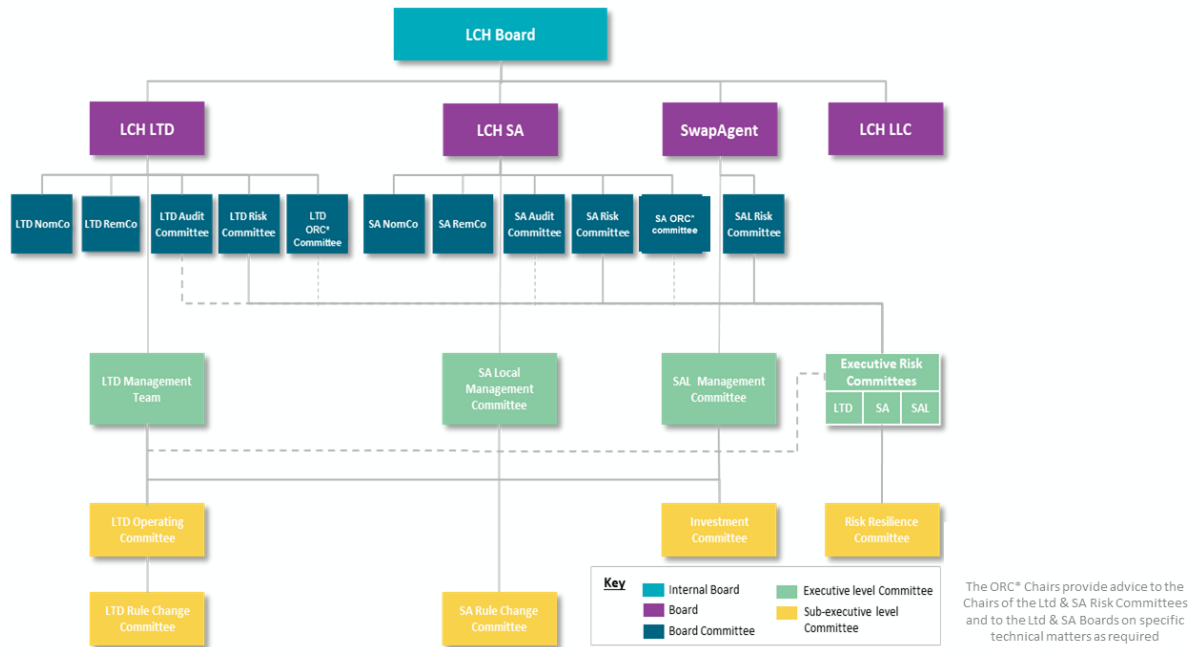
Overall responsibility for risk management rests with the Board. Day-to-day risk management responsibility is relegated to the Chief Risk Officer through the implementation of risk policies and procedures. Risk policies are approved at the Board level and reviewed at least annually. Amendments, updates, changes and revisions to risk policies are proposed by the relevant sub-

committee of the Executive Risk Committee (“ERCo”) and reviewed by the ERCo and Risk Committees and approved by the Boards.

**Key roles and responsibilities of committees**

The here below chart set out an overview of the LCH Governance:

Table 3: LCH Group Risk governance



**a. Board Risk Committees**

Chaired by an Independent Non-Executive Director (“INED”), membership of each committee is comprised of other INEDs and risk expert representatives of the CCP’s clearing members and their clients. Further representatives from each CCP’s user community and senior CCP executives attend the meetings as risk experts in a non-voting capacity. Board Risk Committees meet at least six times a year.

The Board Risk Committees address matters concerning significant risks faced by the CCP’s operating subsidiaries and perform regular review of risk tolerance and all risk policies as well as regulatory issues and review of comprehensive risk reporting. Risk policies are ultimately subject to Board approval.

Under powers delegated by the Boards, the Chief Executive, and in turn the Chief Risk Officer of each subsidiary, has responsibility for all risk decisions taken within the framework of agreed risk policies, as supported by the ERCo and its sub-committees.

The CEO ensures consistency of the Company's activities with the objectives and strategy of the Company as determined by the Board, ensures that sufficient resources are devoted to risk management, and more generally, ensures that risks posed to the Company are duly addressed. The CEO is assisted in its role by the Local Management Committee, which is responsible for decisions relating to local management of the CCP. The LMC meets every two weeks. The members of the LMC are:

Permanent Members:

- SA Chief Executive Officer
- SA Chief Risk Officer
- SA Chief Financial Officer
- SA Chief Compliance Officer
- SA Chief Operating Officer
- Global Head of CDSClear and SA Head of SA EquityClear
- SA Head of Legal
- SA Head of CaLM and RepoClear

Non-voting attendees:

- SA Head of Internal Audit
- Company Secretary (or delegate)
- SA Head of Human Resources
- Head of Sales or European Head of Sales

The main areas of responsibilities of the LMC cover the activities of the CCP: risk management, strategy and business results, liquidity management, financial managements and reporting, operational management (including projects, IT, human resources, compliance and legal), Internal and external Audit and Governance.

#### b. Executive Risk Committee (“ERCo”)

Co-chaired by the Chief Risk Officer of both CCPs (SA and Ltd), the ERCo’s membership comprises Heads of each Clearing business as well Senior Risk management and Compliance executives. It meets at least twice per month.

The ERCo oversees, monitors, reviews and challenges the management of all risks arising in pursuit of the stated business objectives and risk appetite pertaining to those risk types specified in the CCP’s Risk Governance Framework.

#### c. Risk Resilience Committee (“ResCo”)

A sub-committee of the ERCo, the ResCo is chaired by the Head of Resilience Risk and comprised of the subsidiary CROs and COOs, and other key people (e.g. CTO). It meets at least once per month.

The ResCo assists the ERCo by overseeing the implementation of the Resilience Risk policy and framework (e.g. Cyber risk and It Sec policy, Business Continuity risk), including reviews of Resilience

Management Information, Detailed Operational Risk Assessment, loss and incident reports, core controls, key risk indicators, scenario analysis, and deep dive reviews.

#### d. Working Groups

##### **Enterprise Risk Working Group (“ERWG”)**

The chairman is the Deputy CRO. The ERWG’s permanent members are: CRO, CCO, COO, the chairman of FAMWG and the chairman of RRWG. Other stakeholders from the first line risk and the second line risk can attend the working group depending on topics.

This working group is embedding the outcome of all the other working groups. It meets once per month. The aim of the ERWG is to allow a full oversight of the risks and open actions impacting the CCP coming from the Regulatory stream. The monitoring and review of periodic reports ahead of the ERCo will strengthen the monitoring of all regulatory actions. The ERWG will have an overview of actions across the CCP and at each month end, all relevant stakeholders (Market Risk, Resilience, Model Validation, Compliance, etc.) should provide an up-to-date file with all relevant actions and status to the ERWG chair and his team to allow aggregation prior to the session.

##### **Financial Actions Monitoring Working Group (“FAMWG”)**

The purpose of the Financial Actions Monitoring Working Group (the “FAMWG”) is to ensure that all financial actions are being adequately tracked, monitored and closed. Its role is to:

- Reviews progress of all actions. This includes reviewing the actions statuses and granting extensions.
- Determines the appropriate level governance required for closure where relevant and approves the closure of actions that are not in the scope of other committees.

The FAMWG is comprised of the key stakeholders from the first line risk, the second line risk, model validation and Compliance teams. It meets on a monthly basis.

##### **Financial Risk Working Group (“FRWG”)**

The FRWG comprised of the key stakeholders from the first line risk and the second line risk. It meets at least twice per month. The FRWG assists the ERCo by managing and monitoring the establishment and maintenance of a comprehensive system of market, credit, liquidity and collateral risk management including margin levels and models, stress testing, default fund adequacy and default management arrangements, and new product assessment. The relevant points are reported to the ERCo for approval or notification.

##### **Credit Risk Working Group (“CRWG”)**

The CRWG comprises of the key credit and membership officers to discuss all the credit risk topics (e.g. ICS review, counterparty risk policy). It meets at least twice per month. The relevant points are reported to the FRWG and the ERCo for approval or notification.

### **Resilience Risk Working Group (“SA RRWG”)**

The purpose of the RRWG is to support the Resilience Committee (‘ResCo’) by discussing and debating the effectiveness of the Resilience Risk management across LCH SA and also to provide recommendations to SA CRO/Deputy CRO on resilience matters.

### **Risk governance framework (RGF)**

LCH SA has in place a risk governance framework approved and reviewed by the LCH SA Board on April 20<sup>th</sup>, which:

- Lists risks to which the LCH can potentially be exposed, together with a working definition of each risk type.
- Defines LCH’s appetite or tolerance for each risk.
- Lists the minimum standards for each risk which the Board expects to be met, against which appetite can be measured.
- Designates the individuals/groups/committees who are responsible for measuring, monitoring and managing each risk type and.
- Describes the holistic Risk Management Framework to be used for Enterprise Risk Management and provides guidelines for the minimum information the Chief Risk Officer (CRO) must provide in the periodic evaluation of the Clearing House relative to the Board Statement of Risk Standards/Tolerance.

Due to considerations of systemic risk and the public nature of the LCH mission, the Risk Appetite of the Group can broadly be described as low. LCH adheres to high-risk management standards.

Risks should be managed at business unit level but escalated if the impact and/or probability of occurrence is increasing.

The RGF identifies the key risks arising through pursuit of the company’s strategic plan and maps them into a hierarchical taxonomy, comprising three Levels – 0, 1 and 2. In this risk taxonomy, at Level zero the Board recognizes five risk categories:

1. Financial & Model Risks associated directly with clearing activities,
2. Operational Resilience Risks,
3. Strategic Risks,
4. People & Culture Risks,
5. Regulatory Compliance, Legal and Corporate Disclosure Risks.

Within these categories there are thirty-two Level 1 Risks, and a number of Level 2 sub-risks have been identified for many of the Level 1 risks where additional granularity is appropriate.

The RGF risks are tailored to the specific risk types that might be faced by LCH SA in the performance of its specific function within the market place. The risks in the Risk Governance Framework (RGF) are not equal to the risk types as per Basel III but a translation is made to these risk types for the purposes of this report.

For each identified risk there is:

- An individual who is designated as being responsible for identifying, measuring and monitoring such risk;
- Clear guidance on the Standards expected;
- A specific risk policy approved by the Board or other relevant risk management documentation.

A holistic enterprise risk management framework is in place for the measurement and monitoring of all the risks within the risk universe of LCH SA. A quarterly Enterprise Risk and a dashboard is prepared for review by Senior Management, the Audit Committees and LCH SA Board.

Any risks, which are outside the risk appetite, will immediately be reported and an action plan will be put in place as to bring back the relevant risks within appetite.

## **1.6 Basel risk types & coverage**

The below Basel risks are relevant for LCH.

### **(Counterparty) Credit risk**

This is the risk that that a counterparty, (including members, issuers of securities eligible for collateral and investment purposes, and all intermediaries where there is exposure through payment, clearing and settlement processes), will be unable to meet fully its financial obligations when due, or at any time in the future Risk management approach and mitigations.

LCH SA has the following main credit exposures:

- Investment counterparties
- Clearing members (subject to the default waterfall);
- Interoperating CCPs;
- Occasional overnight exposure as a result of settlement and payment activities (see settlement, payment and custodian risk).

This framework incorporates elements of the counterparty's financial profile, including funding, liquidity, capital and profitability, and a detailed operational capability assessment. The scoring framework is approved by Regulators and independently validated at least annually and is continuously monitored for performance.

A minimum credit score is set for joining any clearing service and for institutions to be eligible for investment or as interoperating CCPs, as well as all payment, settlement and custodial intermediaries.

Any changes that affect overall counterparty's ICS would be reported to the CRWG. Counterparties are subject to a formal review annually or on a more frequent basis depending on the ICS and/or exposure. Increased margins are applied to clearing members when their credit score deteriorates below the entry level. Other actions may include reduced credit tolerances and forced reduction of exposures. For non-member counterparties, action will be dependent on the functions provided by that counterparty; this will be reviewed on a case-by-case basis.

The internal ratings correspond to the probability of default whereby 1 represents a default remote counterparty and 10 is equivalent to a defaulting counterparty. This can be equated to the main rating agencies' methodology where 1 is equivalent to AAA/AA+ and 10 is equivalent to D (default rating). Risk exposures to members with an ICS of 6 or worse are generally covered by additional margins calculated as the higher of a margin multiplier or a percentage of stress test losses.

Counterparty Credit risk as a result of clearing member default is captured under Clearing Capital Risk. It is set to the size of the SITG to reflect the maximum amount of capital at risk.

Counterparty credit risk is assessed under the standard approach for the determination of Basel Ratios, as defined by Chapter 2, section 1 Art 111 and following of CRR.

### **(Treasury) Market risk**

Treasury market risk and treasury credit risk (below) compose the investment credit risk. This is the risk arising from the investment of member collateral to manage daily liquidity needs, either through outright investments, cash deposits or the repo markets.

SA's investment portfolio is invested in accordance with the Investment Risk Policy which requires secure investment of a significant portion of the portfolio either via reverse repurchase agreements with credit and financial institutions, receiving high quality, liquid government, government guaranteed or supranational securities as collateral, by investing directly in such securities or by the placement of cash with central banks.

Interest bearing assets are generally invested for a longer term than the interest-bearing liabilities, whose interest rate is generally reset daily. This makes investment revenue vulnerable to volatility in overnight rates and shifts in spreads between overnight and term rates. SA aims to minimize its exposure to interest rate fluctuations. Since the return paid on member liabilities is generally reset to prevailing market interest rates on an overnight basis SA is only exposed for the time it takes to reset the interest rates on its investments and the shifts in spreads between overnight and term rates.

Interest rate exposures are managed within defined risk appetite parameters against which sensitivities are monitored daily. The maximum fixed exposure on any asset in the investment portfolio is one year and the portfolio is subject to an overall interest rate risk limit. The interest rate risk limit is expressed as a percentage of SA EMIR Capital (10%) and for SA, a tighter limit set to 15 MEur is allowed. The stress exposures are calculated under the following historical, hypothetical/antithetical scenarios and monitored daily against the limit. Breaches are reported to senior management and would trigger actions to adjust the Treasury investment portfolio to bring interest rate stress risks within the limits.

SA calculates the treasury market risk in accordance with the standard method in line with its regulatory obligations for pillar 1.

### **(Treasury) Credit risk**

By the end of 2021, SA has only exposures to BDF deposit, Euroclear Bank deposit in USD and outright on the following sovereign countries: France, Belgium, and Germany. Regarding the investment counterparty default risk:

- The entire amount of an unsecured exposure will be at risk.
- For a secured exposure, SA will have – in case of default – the same amount of underlying collateral to its disposal and an additional amount - as per the applied haircut - to cover liquidation losses. The capital of SA can be exposed in case of large (stress) decrease of bonds values at the same time as liquidating the underlying collateral. This situation is unlikely as – in view of the quality of collateral – this would imply a “flight out of quality” during a situation of market stress.

SA calculates the treasury credit risk in accordance with the standard method in line with its regulatory obligations for pillar 1.

### **Operational risk**

This is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

Operational risks are identified, assessed, managed and monitored in a proactive manner to minimise the impact on LCH SA.

The following processes are in place to manage operational risk:

- Project & new product analysis;
- Risk & control self-assessment;
- Key Risk Analysis;
- Scenario analysis;
- Incident Management procedure;
- Key controls reporting.

A monthly Operational Risk Report is produced quarterly and presented to the Local Management Committee, ResCo, ERCo, and the Audit Committee.

### **Liquidity risk**

This is the risk that not enough cash is available to settle margin payments or delivery obligations. Such a shortfall can come about for three main reasons:



- Too much collateral may be encumbered, so not freely available to liquidate to meet potential margin outflows.
- A severe stress may be experienced in which a member or members default and expected margin payments are not received. This weakens the Clearing House ability to pay the margin outflows to its other members.
- If a member defaults in a stressed market, it may be difficult to liquidate their positions, and so adequate margins may not be available for the Clearing House to pay its other members in a timely fashion.

Liquidity risk is managed by CaLM on a day-to-day basis. Liquidity stress testing assuming extreme market conditions is modelled daily. The goal of stress testing is to ensure that the CCP maintains sufficient liquidity buffers against stressed operational liquidity needs and outflows resulting from the default of two clearing members with the largest liquidity requirements ("Cover 2"). Adequacy of liquidity is measured via the Liquidity Coverage Ratio ("LCR").

### Concentration risk

This risk includes (i) large (connected) individual exposures and (ii) significant exposures to groups of counterparties whose likelihood of default is driven by common underlying factors, e.g. sector, economy, geographical location, instrument type.

The management of concentration risk is included within the overall credit risk monitoring and specific indicators are in place for this purpose.

### Settlement, payment and custodian risks

- Settlement risk: risk of making a payment or delivery without receiving, at the same time, the delivery or payment from the counterparty.
- Settlement bank risk: risk of loss of funds held with a settlement bank should it become insolvent.
- Custody risk: risk of loss on securities in safekeeping (custody) as a result of the custodian's insolvency, negligence, misuse of assets, fraud, poor administration or inadequate record keeping.

LCH SA has the following generic tools in place to reduce these exposures:

- Direct access to the Banque de France and CSDs;
- Strict capital and quality requirements for other intermediaries;
- Performance of Delivery Versus Payment (DVP) settlement; Risk monitoring & control of related exposures.

## 2. OWN FUNDS: COMPOSITION OF REGULATORY CAPITAL

LCH SA's total regulatory capital is composed of Tier 1 capital that consists primarily of share capital, additional paid-in capital and retained earnings. This is consistent with COREP disclosure as of 31.12.2022. The prudent valuation is calculated with the standard method (Art 105 CRR). Retained earnings have increased since 2022, further to integration of portion of 2021 profit for €53.1 m.

The other regulatory adjustments are made by the Skin in the Game of LCH SA. As per the default waterfall process, in case of a clearing member default, LCH SA would first use the defaulting member's initial, variation and additional margins as well as the defaulter contribution to the default fund. Should the loss be greater, it will use a share of their capital. As per EMIR, this share of capital, referred to as "skin in the game" (SIG), is calculated as 25% of minimum capital requirement including retained earnings and reserves as defined in Article 35 of regulation EU N°153/2013 of 19 December 2012 (latent market risk).

Structure of LCH SA capital does not include any complex instruments. LCH SA has no Tier 2 component in its capital composition.

Table 4: Composition of regulatory own funds as of 31<sup>ST</sup> of December 2022

<i>In thousands of euros</i>	<b>Amounts</b>
<b>Common Equity Tier 1 (CET1) capital: instruments and reserves</b>	
Capital instruments and the related share premium accounts	113,804 €
of which: Instrument type 1	
of which: Instrument type 2	
of which: Instrument type 3	
Retained earnings	200,918 €
Accumulated other comprehensive income (and other reserves)	43,860 €
Funds for general banking risk	305 €
Independently reviewed interim profits net of any foreseeable charge or dividend	
<b>Common Equity Tier 1 (CET1) capital before regulatory adjustments</b>	<b>358,887 €</b>
<b>Common Equity Tier 1 (CET1) capital: regulatory adjustments</b>	
Additional value adjustments (negative amount)	- 869 €
Intangible assets (net of related tax liability) (negative amount)	- 92,826 €
Other regulatory adjustments ( <i>including IFRS 9 transitional adjustments when relevant</i> )	- 41,885 €
<b>Total regulatory adjustments to Common Equity Tier 1 (CET1)</b>	<b>-135,580 €</b>
<b>Common Equity Tier 1 (CET1) capital</b>	<b>223,307 €</b>
<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>223,307 €</b>

### 3. CAPITAL REQUIREMENTS

The institutions calculating the risk-weighted exposure amounts in accordance with Article 153(5) or Article 155(2) shall disclose the exposures assigned to each category in Table 1 of Article 153(5), or to each risk weight mentioned in Article 155(2).

LCH SA applies the standard approach for all risk exposure.

LCH SA respected largely the capital requirements as of 31.12.2022: 38.45% vs 10.5%. Its Pillar I requirements at 31 December 2022 were as follows:

Table 5: Solvency ratio

Total Solvency ratio as of 31.12.2022	
Common Equity Tier 1 (as a percentage of total risk exposure amount)	38.45%
Tier 1 (as a percentage of total risk exposure amount)	38.45%
Total capital ratio (as a percentage of total risk exposure amount)	<b>38.45%</b>
Institution CET1 overall capital requirement ( <i>CET1 requirement in accordance with Article 92 (1) CRR, plus additional CET1 requirement which the institution is required to hold in accordance with point (a) of Article 104(1) CRD, plus combined buffer requirement in accordance with Article 128(6) CRD expressed as a percentage of risk exposure amount</i> )	<b>10.5%</b>
of which: capital conservation buffer requirement	2.50%

Table 6: Risk weighted assets by type of risks

<i>In thousands of euros</i>	Risk weighted exposure amounts (RWEAs)	Total own funds requirements
	31/12/2022	31/12/2022
Credit risk (excluding CCR)	35,117 €	2,809 €
<i>Of which the standardised approach</i>	35,117 €	2,809 €
<i>Of which: equities under the simple risk weighted approach</i>		
Counterparty credit risk - CCR	-	-
Position, foreign exchange and commodities risks (Market risk)	35,846 €	2,867 €
<i>Of which the standardised approach</i>	35,846 €	2,867 €
Large exposures		
Operational risk	509,867 €	40,789 €
<i>Of which basic indicator approach</i>	509,867 €	40,789 €
<b>Total</b>	<b>580,830 €</b>	<b>46,465 €</b>

An Internal Capital Adequacy Assessment Process (ICAAP) process has been performed using Basel III rules that are applicable from 1 January 2015. The ICAAP has been approved by the Audit Committees and Boards. As an outcome of this process, LCH has concluded that it holds sufficient capital for the relevant risks.

Operational risk composes the large part of risk to which LCH SA is exposed, 87,7% ie 509m€ out of 580m€. The second one is the market risk. The credit counterparty risk which concerned the residual risk on reverse repos was not significant as of 31.12.2022.

## 4. CREDIT RISK

Credit risk induced by the clearing activity of LCH is covered by a specific portion of its capital, called "Skin in the Game". Therefore, the capital calculated against credit risk as presented below excludes all exposures related to clearing activity.<sup>1</sup>

The specific pocket to credit risk induced by clearing activities, Skin in the Game was worth €41.9 m as of 31.12.2022. This amount would cover default of member following the waterfall process. SITG represents the capital that a CCP consents to lose in case of default, after taking into account all collaterals held by the defaulted Member such as Initial Margins, contribution to Default Funds. The full mechanism is exhibited [LCH SA Waterfall mechanism](#)

Thus, credit risk that is valued here concerned the exposure to other assets excluding clearing activities. This comprises mostly:

- Investment activities
- Occasional overnight exposure as a result of settlement and payment activities (see settlement, payment, and custodian risk)
- Cash deposits at commercial banks
- Other working assets such as receivables

---

<sup>1</sup> Cf art 390 of CRR2 : Calculation of the exposure value (art 390)=> credit risk

6. Exposures shall not include any of the following: (c) in the case of the provision of money transmission including the execution of payment services, clearing and settlement in any currency and correspondent banking or financial instruments clearing, settlement and custody services to clients, delayed receipts in funding and other exposures arising from client activity which do not last longer than the following business day;

### Performing – Non performing balances

LCH SA has no nonperforming exposures. Defaulted members are managed within Waterfall (see above) and covered ultimately by Skin in The Game within clearing activity.

Most of its exposure is made by cash collateral that is overnight deposited at Central bank for €32,553m. LCH SA has also cash account open for €143m.

The remaining part of loans are composed by (i) Receivables from Members, mostly banks(ii) receivables from intragroup companies.

LCH SA can invest a portion of cash into debt securities for €873m, issued by European governments.

No impairment has been observed regarding eligible assets so there is no eligible balance in stage 1 and stage 2.

Table 7 : performing and non-performing exposures

<i>In thousands of euros</i>	Gross carrying amount/nominal amount					
	Performing exposures			Non-performing exposures		
	Total amount	of which: stage 1	of which: stage 2	Total amount	of which: stage 2	of which: stage 3
<b>Cash balances at central banks and other demand deposits</b>	<b>143,342 €</b>					
<b>Loans and advances</b>	<b>32,606,707 €</b>					
<i>Central banks</i>	32,512,221 €					
<i>General governments</i>						
<i>Credit institutions</i>	84,043 €					
<i>Other financial corporations</i>	10,443 €					
<b>Debt Securities</b>	<b>873,374 €</b>					
<i>Central banks</i>						
<i>General governments</i>	873,374 €					
<i>Credit institutions</i>	- €					
<i>Other financial corporations</i>						
<b>Off-balance sheet exposures</b>						
<i>Central banks</i>						
<i>General governments</i>	- €					
<i>Credit institutions</i>	- €					
<i>Other financial corporations</i>	- €					
<b>Total</b>	<b>33,623,423 €</b>					

## Maturity of exposures

Loans and advances are composed by overnight deposits, trade receivables and cash accounts. There was also one single line of reverse repos for investment purpose. These transactions are short-term matured.

Debt and securities are composed of government bonds purchased for SA investment portfolio. Our investment policy drives LCH SA to purchase securities for which maximum of maturity admitted is less than two years.

Table 8: Maturity of exposures

<i>In thousands of euros</i>	Net exposure value					
	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
Loans and advances	€ 8,222	€ 32,598,485				€ 32,606,707
Debt securities		€ 873,374				€ 873,374
<b>Total</b>	<b>8,222 €</b>	<b>33,471,859 €</b>	<b>0 €</b>	<b>0 €</b>	<b>0 €</b>	<b>33,480,081 €</b>

## Use of credit risk mitigation techniques

LCH SA applies the standard approach to determine the RWA on credit exposure. Exposure to central banks is then 0% weighted and makes the large portion.

Credit institution includes €53m reverse repos and collateralized securities provide credit mitigation. Other items are moved by specific accounting entries such as booking of prepayment.

There is no credit risk recognized against debt securities that are classified in Trading Book.

Table 9 : standardized approach – Credit risk exposure and CRM effects as of December 31<sup>st</sup> 2022

<i>In thousands of euros</i>	Exposures before CCF and before CRM		Exposures post CCF and post CRM		RWAs and RWAs density	
	On-balance-sheet exposures	Off-balance-sheet exposures	On-balance-sheet exposures	Off-balance-sheet amount	RWEA	RWEA density (%)
Central governments or central banks	32,655,563 €		32,655,563 €		0 €	0%
Credit Institutions	105,862 €		52,378 €		10,476 €	20%
Corporates	10,443 €		10,443 €		10,443 €	100.0%
Retail						
Secured by mortgages on immovable property						

Exposure classes <i>In thousands of euros</i>	Exposures before CCF and before CRM		Exposures post CCF and post CRM		RWAs and RWAs density	
	On-balance-sheet exposures	Off-balance-sheet exposures	On-balance-sheet exposures	Off-balance-sheet amount	RWEA	RWEA density (%)
Exposures in default						
Exposures associated with particularly high risk						
Covered bonds						
Other items	14,198 €		14,198 €		14,198 €	100%
<b>TOTAL</b>	<b>32,786,066 €</b>		<b>32,732,582 €</b>		<b>35,117 €</b>	<b>4.54%</b>

LCH SA has its major exposition to central banks for its cash deposits and to European government for its outright purchases of government bonds.

## 5. MARKET RISK

LCH SA is exposed to interest rate risk on the investment portfolio as a consequence of changes in applicable interest rates (including credit spreads) of long-term sovereign investments and secured lending transactions. LCH SA is not admitted investing into derivatives or securitization products.

The exposure to the interest rate risk is measured and monitored daily by currency and maturity, this exposure is determined with the PV01 metric (sensitivity to 1 bp parallel shift of the OIS Curve).

The LCH SA Board determines the risk appetite for Interest Rate Risk (IRR) not exceeding 10% of LCH SA capital. Stress scenarios are set with reference to the capital position and will be updated monthly or upon material downward movement

Table 10: Market Risk under the standardized approach

<i>In thousands of euros</i>	RWEAs
<b>Outright products</b>	
Interest rate risk (general and specific)	35,846 €
Equity risk (general and specific)	
Foreign exchange risk	
Commodity risk	
<b>Options</b>	
Simplified approach	

<i>In thousands of euros</i>	RWEAs
Delta-plus approach	
Scenario approach	
<b>Securitisation (specific risk)</b>	
<b>Total</b>	<b>35,846 €</b>

## 6. OPERATIONAL RISK

Operational risk is the risk of loss arising through failures associated with personnel, processes, systems or from external events. It is inherent in every business organization and covers a wide spectrum of issues.

Operational risks are identified, assessed, controlled, and managed in a proactive manner to minimize the impact on LCH SA.

The objectives of the Operational Risk Framework (ORF) developed by LCH Group are to identify measure, control and/or reduce operational risk and to provide an accurate, usable picture of the risk profile of LCH. The ORF organizes the qualitative and quantitative management of operational risk.

This framework covers all types of operational risks proposed under Basel III.

For the operational risk capital requirements applicable since 1 January 2008, LCH uses the Basic Indicator Approach (BIA).

Table 11 : Operational risk own funds requirements and risk-weighted exposure amounts

<i>In thousands of euros</i>	Relevant indicator			Own funds requirements	Risk weighted exposure amount
	Year-3	Year-2	Last year		
Banking activities subject to basic indicator approach (BIA)	234,434 €	269,800 €	311,554 €	34,770 €	509,867 €
Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches					
<u>Subject to TSA:</u>					
<u>Subject to ASA:</u>					
Banking activities subject to advanced measurement approaches AMA					

## 7. UNENCUMBERED ASSETS

In the below table, the securities portfolio and reverse repos dealt within Clearing activity are not reported as unencumbered assets. The sole encumbered asset concerns a reverse repos dealt within investment activity for €53m.



	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
		of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
<i>In thousands of euros</i>								
<b>Assets of the reporting institution</b>	<b>53,408 €</b>	<b>€53,408.4</b>	<b>53,485 €</b>	<b>€ 53,485</b>	<b>40,980,597 €</b>	<b>€33,531,156</b>	<b>40,980,597€</b>	<b>€ 33,527,001</b>
Loans on demand					32,657,782 €	€32,657,782	32,657,782 €	€ 32,657,782
Loans and advances other than loans on demand	53,408 €	€ 53,408	53,485 €	€ 53,485				
Equity instruments								
Debt securities					873,374 €	€873,374	873,374 €	€869,219
of which: issued by general governments					873,374 €	€ 873,374	873,374 €	€869,219
Other assets			-	-	7,449,441 €		7,449,441 €	

Table 12: Breakdown of unencumbered assets and unencumbered assets

## 8. LIQUIDITY COVERAGE RATIO

Institutions need to hold a liquidity buffer of high-quality liquid assets (“HQLA”) to cover their net cash outflows in stressed conditions over a thirty-day period. The Liquidity Coverage Ratio is set at a minimum ratio of 100%. LCH SA maintains LCR largely beyond regulatory threshold – 130.5% as of December, 31 2022. The HQLA at LCH SA mainly consists of deposits held with central banks and the investment portfolio

Table 13 : LCR ratio over the last five quarters

<i>In thousands of euros</i>	Total unweighted value (average)					Total weighted value (average)				
Quarter ending on	31/12/2022	30/09/2022	30/06/2022	31/03/2022	31/12/2021	31/12/2022	30/09/2022	30/06/2022	31/03/2022	31/12/2021
Total high-quality liquid assets (HQLA),						36,024,993 €	31,396,051 €	28,356,048 €	36,024,993 €	36,024,993 €
Retail deposits and deposits from small business customers, of which:										
<i>Stable deposits</i>										
<i>Less stable deposits</i>										
Unsecured wholesale funding										
<i>Operational deposits (all counterparties)</i>	39,579,604 €	40,248,179 €	38,650,689 €	39,333,804 €	37,768,385 €	31,663,683 €	32,198,543 €	30,920,551 €	31,467,043 €	30,214,708 €
<i>Non-operational deposits (all counterparties)</i>	242,099€	1,720,036 €	2,273,898 €	1,638,293 €	472,182 €	241,268 €	1,719,949 €	2,273,686 €	1,638,004 €	472,182 €
Unsecured debt										
Secured wholesale funding										
Additional requirements										
<i>Outflows related to derivative exposures</i>	1,763,219 €	932,381 €	2,332,686 €	1,534,937 €	1,466,166 €	1,763,219 €	932,381 €	2,332,686 €	1,534,937 €	1,466,166 €
<i>Outflows related to loss of funding on debt products</i>										
<i>Credit and liquidity facilities</i>	- €	- €	7,594 €	7,187 €	4,494 €	- €	- €	7,594 €	7,187 €	4,494 €
Other contractual funding obligations										
Other contingent funding obligations	96,560 €	37,686 €	33,334 €	39,527 €	29,618 €	- €	- €	- €	- €	- €
<b>TOTAL CASH OUTFLOWS</b>	<b>41,681,482 €</b>	<b>42,938,282 €</b>	<b>43,298,199 €</b>	<b>42,553,748 €</b>	<b>39,740,845 €</b>	<b>33,668,170 €</b>	<b>34,850,874 €</b>	<b>35,534,516 €</b>	<b>34,647,171 €</b>	<b>32,157,549 €</b>

<i>In thousands of euros</i>	Total unweighted value (average)					Total weighted value (average)				
Quarter ending on (DD Month YYY)	31/12/2022	30/09/2022	30/06/2022	31/03/2022	31/12/2021	31/12/2022	30/09/2022	30/06/2022	31/03/2022	31/12/2021
Secured lending (e.g. reverse repos)										
Inflows from fully performing exposures	5,816,609 €	4,811,725 €	6,061,845 €	4,292,785 €	4,172,918 €	5,816,609 €	4,811,725 €	6,061,845 €	4,292,785 €	4,172,918 €
Other cash inflows	978,515 €	1,047,297 €	1,085,455 €	1,241,206 €	832,401 €	978,515 €	1,047,297 €	1,085,455 €	1,241,206 €	832,401 €
Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)										
Excess inflows from a related specialised credit institution										
<b>TOTAL CASH INFLOWS</b>	<b>6,795,124 €</b>	<b>5,859,022 €</b>	<b>7,147,301 €</b>	<b>5,533,991 €</b>	<b>5,005,319 €</b>	<b>6,795,124 €</b>	<b>5,859,022 €</b>	<b>7,147,301 €</b>	<b>5,533,991 €</b>	<b>5,005,319 €</b>
<i>Fully exempt inflows</i>										
<i>Inflows subject to 90% cap</i>										
<i>Inflows subject to 75% cap</i>	6,795,124 €	5,859,022 €	7,147,301 €	5,533,991 €	5,005,319 €	6,795,124 €	5,859,022 €	7,147,301 €	5,533,991 €	5,005,319 €
<b>LIQUIDITY BUFFER</b>						<b>35,090,945 €</b>	<b>38,459,474 €</b>	<b>35,798,173 €</b>	<b>37,711,609 €</b>	<b>36,024,993 €</b>
<b>TOTAL NET CASH OUTFLOWS</b>						<b>26,873,046 €</b>	<b>28,991,851 €</b>	<b>28,387,216 €</b>	<b>29,113,180 €</b>	<b>27,152,230 €</b>
<b>LIQUIDITY COVERAGE RATIO</b>						<b>130.58%</b>	<b>132.66%</b>	<b>126.11%</b>	<b>129.53%</b>	<b>132.68%</b>

## 9. REMUNERATION POLICY

### Governance

LCH SA's Remuneration Committee ("the Committee") works with London Stock Exchange Group's ("LSEG") Remuneration Committee ("Group Committee") to oversee LCH SA's remuneration policies.

During the financial year ended 31 December 2022, the Committee met on two occasions.

The Committee is appointed by the Board of LCH SA and is made up of a majority of independent Non Executive Directors. The Committee's terms of reference detail the duties and responsibilities of the Committee and are available on the Governance section of LCH Group's website <https://www.lch.com/about-us/structure-and-governance/>.

### General

In determining its remuneration policies, LCH SA monitors developments in the wider marketplace and continues to consult and work with key stakeholders (including, but not limited to LCH SA's regulators and the Group Committee) on any key decisions taken.

The remuneration policy is gender neutral and does not discriminate on the basis of the protected characteristics of an individual. LCH SA undertakes to reward all employees fairly, regardless of job function, race, religion, color, national or ethnic origin, sex, sexual orientation, marital status, pregnancy, maternity, disability or age.

It is the policy of LCH SA to operate competitive remuneration policies so as to attract, retain and motivate an appropriate workforce for its ongoing success. LCH SA is also committed to ensuring that its remuneration practices are aligned to performance and promote sound and effective risk management and do not encourage excessive or inappropriate risk taking. In all cases, remuneration will be in line with the corporate strategy, objectives, Group ESG values, corporate competencies, and long-term interests of LCH SA, Post Trade Group and LSEG.

It is the policy of LCH SA to comply with any and all regulatory frameworks (including as to tax) which apply to the remuneration of any of its employees.

The remuneration policy aims to encourage responsible business conduct and ensures that employees are not remunerated in a way that conflicts with their duty to act in the best interests of clients, members, or participants.

### Remuneration

The Group Committee has responsibility for overseeing remuneration arrangements for all of the Group's people. The Group's single aligned global reward framework creates a transparent,

performance-driven approach for our Group. This is scaled according to seniority and defines the target and maximum variable remuneration opportunity for individuals at each global grade. No individual can exceed the maximum opportunity for their grade. This framework is compliant with the requirements of CRD V.

The Group reward framework is designed to reward individuals for good financial and non-financial performance that support the corporate strategy and objectives and align remuneration with long-term sustainable performance:

- The Group bonus pool is based on performance measures weighted 60% against Adjusted Operating Profit (AOP) growth and 40% against key strategic objectives. The management of risk is fundamental to the successful execution of the strategy of the Group and 'Resilience' is one of the key strategic objectives which form part of the Group bonus pool assessment.
- Individual performance is assessed against contribution to the strategic objectives, including risk objectives, and against role-related goals and expected behaviours, taking into account both what has been achieved and how the individuals achieved their targets.
- All awards are discretionary and will not reward excessive risk-taking; poor behaviour/risk management could result in a zero bonus.
- In-year adjustments, malus and/or clawback may be applied to awards where appropriate and where legally possible.

Remuneration arrangements may include a mix of fixed pay and variable pay. Fixed pay is comprised of base salary, pension and other country specific benefits. Variable pay is subject to performance and includes annual discretionary bonus awards and share based incentives (payable in shares of LSEG plc), depending on role seniority as detailed below. An individual's fixed and variable remuneration will be appropriately balanced. Non-Executive Directors receive no variable remuneration for their role supporting LCH SA.

The combination of short and long-term incentives, together with deferral, the risk management gateway, malus and claw back tools are intended to address the alignment between performance and risk periods. Short-term risk is addressed in the discretionary annual bonus scheme, which is determined by reference to performance against agreed Group, divisional, LCH SA and individual objectives. Long-term risk is addressed in the Restricted Share and Long-Term Incentive Plans, which have multi-year assessment periods as detailed below.

The Group ensures, using Group wide processes involving liquidity and affordability testing, that LCH SA's total variable remuneration does not limit its ability to strengthen its capital base and that there is sufficient capital available to LCH SA.

### **Salary**

Base salaries are predetermined, non-discretionary and non-revocable. Base salaries reflect an individual's role, skills, professional experience and organizational responsibility and are reviewed annually against general market levels. Increases are discretionary, except where mandated by local law. Salaries are set at an appropriate level to allow a fully flexible policy to be operated in respect of the award of any discretionary bonus (including the possibility to pay a zero bonus).

## **Profit share**

Employees of LCH SA are eligible to receive payments under the profit share scheme, as is mandatory by law in France.

## **Annual discretionary bonus scheme**

The Group Committee determines the Group bonus pool based on performance measures weighted 60% against Adjusted Operating Profit (AOP) growth and 40% against key strategic objectives, as detailed in the Group's Annual Report.

Individual bonuses are determined in accordance with the Group's Annual Incentive Plan (AIP). The AIP rewards individual performance in line with a number of factors including risk appetite and the performance and corporate strategy of LCH SA, Post Trade Group and LSEG.

The AIP is designed to:

- Drive accountability, collaboration and results - including both activities and behaviours
- Reward the excellent individual and collective performance our organisation needs to succeed
- Deliver differentiated reward to recognise outstanding performance and contribution
- Provide competitive total compensation

To evaluate individual performance, a four-point rating scale is used, with strict distribution guidance. This provides a strong foundation to differentiate and reward for outperformance.

The Group's Group Leader population are subject to bonus deferral. If their annual bonus exceeds €150,000, 50% will be deferred into LSEG plc shares, vesting in equal tranches over three years. For individuals that are LCH SA MRTs, annual bonus awards will be structured to ensure the proportion of their total variable remuneration that is deferred and paid in non-cash instruments (including a post-vesting holding period) meets the requirements of CRD V in addition to the Group's Group Leader deferral requirements.

## **Restricted Share Plan**

Individuals at the Group Director level in LCH SA are eligible for awards under the Restricted Share Plan. This is a three-year plan where employees are typically granted 40% of their base salary as shares, vesting in equal tranches over three years. Where such individuals are identified MRTs, vesting will be in equal tranches over four years, with a six-month post-vesting holding period.

### **Long Term Incentive Plan**

Individuals at Group Leader level are eligible to participate in LSEG's Long Term Incentive Plan ("LTIP"). Vesting occurs over a three-year period subject to the achievement of a risk management gateway and the following performance measures: 60% against Group Adjusted Earnings Per Share ("AEPS") performance and 40% against relative Group Total Shareholder Return ("TSR") performance. For LCH SA MRTs, vesting occurs over a four-year period, with a six-month post-vesting holding period.

The risk management gateway is an additional measure, specific to the LCH CCPs, which ensures that risk and resilience areas are appropriately addressed, in light of their role and systemic importance.

The Committee will assess the gateway based on input from LCH SA Risk to determine whether LCH SA has managed its risks effectively over the performance period. This includes an assessment of whether LCH SA has suffered significant losses and whether there have been any adverse or severe operational or financial risk performance issues which may warrant nil or partial vesting.

### **Guaranteed Variable Remuneration**

Guaranteed variable remuneration is not permitted unless:

- it is exceptional;
- occurs in the context of hiring new staff members;
- is limited to the first year of a new staff member's service; and
- LCH SA has a strong capital base.

### **Retention awards**

Retention payments are situation-specific and are generally only awarded to employees with skills that are critical either to the business or for a particular project.

### **Severance payments**

Payments relating to the termination of an employment contract will be determined against contractual and statutory requirements, reflect performance achieved over time and will be designed in such a way that does not reward failure or misconduct.

### **Buy-out awards**

Any buy-out awards will generally be limited to the commercial value of payments and awards forfeited by the individual. The periods of retention, deferral, vesting and ex post risk adjustment of buy-out awards will be no shorter than the awards being forfeited. Buy-out awards are subject to proof of forfeiture and verification.

## Control Functions

Employees engaged in risk, compliance and internal audit are independent from the business activities that they oversee and are rewarded in a manner that is independent of the business performance.

The reward arrangements for employees in these functions is determined by the relevant function head and CEO, within the parameters of the Group's reward framework. The calculation of bonus for employees in this category is independent of the business performance of LCH SA and whilst the overall performance of the Group may be a contributing factor in determining total bonus pools, the primary factors in determining individual rewards for employees in these functions will be the degree to which corporate competencies and specific functional and individual objectives have been achieved. This is intended to avoid members of the control functions being subject to any conflict of interests.

## Malus / Clawback

Variable remuneration may be subject to performance adjustment prior to vesting. Furthermore, in certain circumstances and where legally possible, clawback may be exercised, pursuant to which it may be required for awards to be repaid (or deducted from future payments) for up to three years following the date of payment.

## Detailed reporting on Material Risk Takers

Per the regulatory requirements of CRD V, employees whose activities are deemed to have an impact on the risk profile of LCH SA must be identified as MRTs.

For 2022, 13 employees were identified as MRTs for LCH SA.

MRTs are subject to certain remuneration requirements under CRD V. The variable remuneration of MRTs for any given year must not exceed 200% of the total fixed remuneration (1:2 ratio) and shall be subject to malus and clawback provisions.

In addition, MRTs are subject to the following rules with respect to their variable pay:

- Minimum deferral of 40% (60% for the CEO) of total variable remuneration for a period of at least 4 years, vesting no faster than pro-rata over this period;
- At least 50% of total variable remuneration must be paid in the form of non-cash instruments and will be delivered in LSEG plc shares (subject to a 6-month post-vesting retention period).

The above deferral and payment in instruments requirements for MRTs are not applicable for individuals that meet the following de minimis threshold:

- total variable remuneration is €50,000 or less: and
- total variable remuneration does not comprise more than one-third of total remuneration.



For 2022, the individual de minimis exemption applied to 3 individuals.

FY2022 remuneration information is detailed below and has been aggregated to avoid disclosing individual remuneration:

Table 14: Remuneration awarded for the financial year

In million euros		All MRTs
Fixed remuneration	Number of identified staff	13
	Total fixed remuneration	€2.6m
	Of which: cash-based	€2.6m
	Of which: shares or equivalent ownership interests	
Variable remuneration	Number of identified staff	13
	Total variable remuneration	€3.3m
	Of which: cash-based	€1.6m
	Of which: deferred	€0.3m
	Of which: shares or equivalent ownership interests	€1.7m
	Of which: deferred	€1.7m
<b>Total remuneration</b>		<b>€5.9m</b>

**Special payments to staff whose professional activities have a material impact on institutions' risk profile (identified staff):**

There were no guaranteed variable remuneration awards or severance payments to LCH SA MRTs in 2022.

Table 15: Remuneration of 1 million EUR or more per year

EUR	Identified staff that are high earners as set out in Article 450(i) CRR
1 000 000 to below 1 500 000	1
1 500 000 to below 2 000 000	-
2 000 000 to below 2 500 000	-
2 500 000 to below 3 000 000	-
3 000 000 to below 3 500 000	-
3 500 000 to below 4 000 000	-
4 000 000 to below 4 500 000	-
4 500 000 to below 5 000 000	-
5 000 000 to below 6 000 000	-

EUR	Identified staff that are high earners as set out in Article 450(i) CRR
6 000 000 to below 7 000 000	-
7 000 000 to below 8 000 000	-

## 10. LEVERAGE RATIO

LCH SA as banking licensed CCP is not submitted to leverage ratio since CRR2 application in June 28<sup>th</sup>,2021.

TABLE OF FIGURES

Table 1: Key metrics of LCH SA as of 31.12.2022 .....5

Table 2 LCH Group entity structure chart .....9

Table 3: LCH Group Risk governance .....10

Table 4: Composition of regulatory own funds as of 31<sup>ST</sup> of December 2022.....18

Table 5: Solvency ratio.....19

Table 6: Risk weighted assets by type of risks .....19

Table 7 : performing and non-performing exposures .....21

Table 8: Maturity of exposures.....22

Table 9 : standardized approach – Credit risk exposure and CRM effects as of December 31<sup>st</sup> 2022 .....22

Table 10: Market Risk under the standardized approach.....23

Table 11 : Operational risk own funds requirements and risk-weighted exposure amounts .....24

Table 12: Breakdown of unencumbered assets and unencumbered assets .....25

Table 13 : LCR ratio over the last five quarters.....25

Table 14: Remuneration awarded for the financial year.....33

Table 16: Remuneration of 1 million EUR or more per year .....33

*End of disclosure report*

**Contact:**

Finance LCH SA: frederic.blanchard@lseg.com