Required fields are shown with yellow backgrounds and asterisks.

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
Form 19b-4

File No. * SR 2025 - * 003
Amendment No. (req. for Amendments *)

Filing by Banque Centrale de Compensation

Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial *	Amendment *	Withdrawal	Section 19(b)(2) *	Section 19(b)(3)(A) *	Section 19(b)(3)(B) *
✓	☐	☐	✓	☐	☐

Pilot	Extension of Time Period for Commission Action *	Date Expires *
☐	☐	

Rule

- ☐ 19b-4(f)(1)
- ☐ 19b-4(f)(2)
- ☐ 19b-4(f)(3)
- ☐ 19b-4(f)(4)
- ☐ 19b-4(f)(5)
- ☐ 19b-4(f)(6)

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010

Section 806(e)(1) * ☐

Section 806(e)(2) * ☐

Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934 Section 3C(b)(2) * ☐

Exhibit 2 Sent As Paper Document ☐

Exhibit 3 Sent As Paper Document ☐

Description

Provide a brief description of the action (limit 250 characters, required when Initial is checked *).

LCH SA is proposing to amend its Liquidity Risk Modelling Framework, which describes the Liquidity Stress Testing framework by which the Collateral and Liquidity Risk Management department of LCH SA assures that it has enough cash available to meet any financial obligations, both expected and unexpected, that may arise over the liquidation period for each of the clearing services that LCH SA offers.

Contact Information

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name * Mohamed Last Name * Meziane

Title * Senior Regulatory Advisor

E-mail * mohamed.meziane@lseg.com

Telephone * (000) 000-0000 Fax

Signature

Pursuant to the requirements of the Securities Exchange of 1934, Banque Centrale de Compensation has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

Date 04/14/2025

By Mohamed Meziane
(Name *)

(Title *) Senior Regulatory Advisor

NOTE: Clicking the signature block at right will initiate digitally signing the form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

Mohamed MEZIANE
Digitally signed by Mohamed MEZIANE
Date: 2025.04.14 13:44:49 -05'00'

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFS website.

Form 19b-4 Information *

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1_LCH SA-2025-003_LRMF_6.3_SEC

The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

Exhibit 1 - Notice of Proposed Rule Change *

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2_LCH SA-2025-003_LRMF_6.3_SEC

The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

Exhibit 1A - Notice of Proposed Rule Change, Security-Based Swap Submission, or Advanced Notice by Clearing Agencies *

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

Exhibit 2- Notices, Written Comments, Transcripts, Other Communications

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Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

☐ Exhibit Sent As Paper Document

Exhibit 3 - Form, Report, or Questionnaire

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5_LCH SA-2025-003_LCH_SA_Liquid
6_LCH SA-2025-003_LCH LRMF 6.3 I
7_LCH SA-2025-003_QA LRMF 6.3_v

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

☐ Exhibit Sent As Paper Document

Exhibit 4 - Marked Copies

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

Exhibit 5 - Proposed Rule Text

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3_LCH SA-2025-003_Liquidity Risk M
4_LCH SA-2025-003_CALRM LCR me

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change

Partial Amendment

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 19b-4

Proposed Rule Change
by

BANQUE CENTRALE DE COMPENSATION

Pursuant to Rule 19b-4 under the
Securities Exchange Act of 1934

Item 1. Text of the Proposed Rule Change

(a) Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 ("**Exchange Act**" or "**Act**"),[1] and Rule 19b-4 thereunder,[2] Banque Centrale de Compensation, which conducts business under the name LCH SA ("**LCH SA**"), is proposing to amend its Liquidity Risk Modelling Framework (the "**Framework**"), which describes the Liquidity Stress Testing framework by which the Collateral and Liquidity Risk Management department ("**CaLM**") of LCH SA assures that LCH SA has enough cash available to meet any financial obligations, both expected and unexpected, that may arise over the liquidation period for each of the clearing services that LCH SA offers (the "**Proposed Rule Change**").[3]

The text of the Proposed Rule Change is provided in Exhibit 5.[4]

The implementation of the Proposed Rule Change will be contingent upon LCH SA's receipt of all necessary regulatory approvals.

(b) Not applicable.

(c) Not applicable.

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1 15 U.S.C. 78s(b)(1).

2 17 CFR 240.19b-4.

3 LCH SA, a subsidiary of LCH Group and an indirect subsidiary of the London Stock Exchange Group plc ("LSEG"), manages its liquidity risk pursuant to, among other policies and procedures, the Group Liquidity Risk Policy and the Group Liquidity Plan applicable to each entity within LCH Group. In addition to its CDSClear service, LCH SA provides clearing services in connection with cash equities and derivatives listed for trading on Euronext (EquityClear), commodity derivatives listed for trading on Euronext (CommodityClear), and tri-party Repo transactions (RepoClear). LCH SA also maintains an interoperability link with Euronext Clearing, formerly Cassa di Compensazione e Garanzia, in Milan, Italy.

4 All capitalized terms not defined herein have the same definition as in the Framework, unless otherwise stated.

Item 2. Procedures of the Self-Regulatory Organization

LCH SA has completed all of the required actions to be taken to approve the Proposed Rule Change. The LCH SA Executive Risk Committee ("**ERCo**") approved the Proposed Rule Change with respect to excess collateral on May 10, 2024, with a notification to the LCH SA Risk Committee ("**RiskCo**") on May 22, 2024. In addition, the ERCo approved the auto-collateralization feature on July 2, 2024. The ERCo approved the remaining changes to the Framework, including changes related to self-identified model enhancements, independent Model Validation recommendations and examination findings on November 28, 2024. No further approvals to authorize this Proposed Rule Change are necessary.

Questions should be addressed to Nicolas Dot, Chief Compliance Officer, at nicolas.dot@lseg.com or +33 7 70 21 69 14; or Mohamed Meziane, Senior Regulatory Advisor, Compliance Department, at mohamed.meziane@lseg.com or +33 1 70 37 65 52.

Item 3. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

(a) Purpose

The Proposed Rule Change is being adopted to (1) enhance details about how LCH SA models for the liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature in its Framework, (2) amend how LCH SA accounts for non-defaulting members' excess collateral in the calculation of the Standalone Operational Target and Liquidity Coverage Ratio ("**LCR**") in its Framework, (3) quantify LCH SA's liquidity needs arising from clearing members replacing liquid resources with non-liquid resources for liquidity needs modelling, (4) clarify how LCH SA accounts for clearing members

switching their respective pledging arrangement for collateral included in LCH SA's Standalone Operational Target and (5) enhance the Framework to simulate a sovereign country rating downgrade when computing liquidity reverse stress tests. LCH SA is proposing to make other non-substantive changes to correct errors and for purposes of conformity.

Section 1.6.1 – Liquidity Sources

LCH SA is amending Section 1.6.1 by removing reference to cross-currency bilateral repo that involved a bilateral repo and an FX transaction (whereby LCH SA may pledge collateral denominated in one currency for cash denominated in a different currency as a liquidity resource to meet its liquidity resource requirement). LCH SA is making this change because it currently only uses triparty repo to perform cross-currency transactions under which the FX conversion is managed by the triparty agent. This amendment will also align the Framework with the LCH SA Liquidity Plan (the "**Liquidity Plan**"). The same change will be reflected in Appendix 6.5: "Liquidity risk monitoring reports" for consistency as well as to conform with Section 1.6.1.3.

LCH SA is also replacing reference to "FX spot market transaction" with "FX operation", which LCH SA believes more accurately reflects the process. Finally, LCH SA is clarifying that there is no multicurrency committed lines anymore given the removal of the reference to the Norges bank secured committed facility. Therefore, only an uncommitted overdraft facility with an international bank remains in place.

Section 1.6.1.1 – Collateral Transfer to 3G pool

LCH SA is proposing an amendment to remove reference to "successfully tested in 2016" to clarify that the operational effectiveness of the transfer of collateral to the 3G pool is tested on

an annual basis as part of the war games exercises (*i.e.*, instead of having a singular reference to 2016).

Section 1.6.1.3 – Synthesis

LCH SA is proposing to amend the summary table in Section 1.6.1.3 to align with the changes made to the preceding paragraphs. Specifically, reference to cross-currency bilateral repo transactions will be removed because LCH SA no longer utilizes these transactions to raise liquidity sources, and instead leverages cross currency triparty repo transactions. Moreover, the reference to FX transactions will be removed because the triparty cross currency repo transactions do not entail FX transactions, and instead, the FX conversion is managed by the triparty agent. LCH SA is also proposing to clarify that CaLM will demonstrate to the Board these prearranged funding arrangements used to raise euro liquidity are highly reliable even in extreme but plausible market conditions, as part of the annual review of the Liquidity Plan. In making this change, LCH SA is removing the historical reference to liquidity resources raised to meet its requirements in 2021 and 2022, as this reference is outdated and no longer applicable. For securities received from triparty reverse repo transactions where the agent is Clearstream as a Central Securities Depository, LCH SA is specifying that such securities are not considered Liquid Resources because LCH SA does not have the right to rehypothecate these securities for purposes of raising liquidity. This updated text will substitute the previous historical reference to the Clearstream triparty repo facility and its exclusion from liquid resources, as LCH SA has not completed the technical setup needed to rehypothecate such securities. LCH SA also proposes to clarify that collateral ineligible to be pledged to the ECB to raise liquidity via triparty repo transaction refers to USD- (U.S. Treasuries) and GBP-denominated securities (UK Gilts) only. LCH SA is also removing reference to a secured committed credit line with Norges Bank as an

available liquidity resource, as this facility is no longer in place. Since LCH SA has access to an uncommitted credit line with an international bank to cover overdrafts up to €10mm, LCH SA is clarifying that this resource is uncommitted, given removal of the reference to the Norges bank secured committed facility. LCH SA will also amend Section 6.3: Appendix 3 and Section 6.5: Appendix 5 to reflect the removal of the Norges Bank facility for purposes of conforming throughout the Framework.

Section 1.6.2.3: Operational Liquidity Requirements

In Section 1.6.2, LCH SA describes the three main sources of liquidity needs for the clearing agency as those arising from member defaults, liquidity needs arising from interoperating CCP defaults and needs related to operational liquidity requirements. With respect to operational liquidity needs, LCH SA is proposing to clarify in Section 1.6.2.3 that a need may arise from the substitution of liquid resources to non-liquid resources upon member request. The previous reference to substitution of cash collateral by members was incomplete as all liquid resources could be considered as a need if switched to non-liquid resources. As part of this revision, LCH SA is removing reference to the need arising from an increase in Central Bank Guarantee ("**CBG**") payments because there is no dual payment solution for members using the CBG solution and therefore no possibility to switch to another available regime of collateral if the CBG solution is used by a counterparty. Finally, LCH SA is adding the liquidity need arising from clearing members switching to a pledge regime (*i.e.*, from FTT to pledge) for collateral posted as margin. Collateral posted under the pledge regime is not considered a component of liquid resources, but rather an operational liquidity need, given that LCH SA does not have rehypothecation rights to such collateral unless the member posting it is in default.

Section 1.6.2.4: Zoom on the settlement, its benefits and issues (Auto-Collateralization Feature)

As part of its daily settlement process, LCH SA has the ability to leverage the auto-collateralization feature for certain ECB-eligible securities as part of the ECB's T2S service for securities settlement. The ECB's T2S auto-collateralization service enables LCH SA to facilitate timely settlement of a RepoClear transaction in the event of a timing mismatch between the security delivery and the cash delivery in the settlement platform. Specifically, should a seller deliver ECB-eligible securities before delivery of cash by the buyer, the T2S auto-collateralization service will allow LCH SA to pledge these securities for cash at the applicable central security depository ("**CSD**"). LCH SA is therefore able to settle the seller instructions against the pledge of these securities as collateral for the liquidity borrowed from the T2S service.

If LCH SA is not able to find a legitimate buyer for delivering the securities within the end of day and to avoid any fees chargeable to LCH SA for securities pledged overnight, LCH SA must inject the full cash equivalent amount to release the securities from the auto-collateralization account and subsequently transfer these securities from the CSD to the BdF 3G Pool. In doing so, LCH SA can obtain liquidity from the BdF after adjusting for any applicable haircuts. LCH SA quantifies the liquidity need arising from this transaction by multiplying a pre-defined auto-collateralization limit set by the CCP for each Dedicated Cash Account ("**DCA**"), corresponding to a pool of securities in the settlement platform, by an applicable ECB haircut for each sovereign debt type. For the case in which multiple issuers are assigned to the same DCA, the auto-collateralization limit is set pro rata for each issuer based on the average daily settlement percentage from the previous year. LCH SA takes the sum of the results of potential

liquidity impact for each sovereign debt issuer and reduces by this total the assets in the numerator of the LCR, as well as the resources to be compared against the Operational Target. All else being equal, an increase in any one of these parameters will result in a decrease in the LCR and Operational Target Key Risk Indicator ("**KRI**") and vice versa.

The current Framework therefore computes the auto-collateralization liquidity need by leveraging the specific limits set up in production and approved by LCH SA's Second Line Risk function and LCH SA management, in addition to utilizing the current ECB haircut schedule. The ECB assigns haircuts based on several parameters, including the type and issuer of the debt instrument, the residual maturity and overall credit quality. For example, the ECB as of August 2024 applies a larger haircut to sovereign debt issued by Italy compared with France for the same residual maturity due to the overall credit quality difference, among other factors. For Italy, Germany, Spain and Belgium, the current Framework applies 100% haircut for conservative reasons because the operational effectiveness of the "bulk" transfer from T2S to the 3G Pool was only recently demonstrated via a conclusive test in June 2024.

LCH SA is proposing to amend Section 1.6.2.4 of the Framework to provide additional clarification on the auto-collateralization feature that was not explicit in the current version of the Framework. Currently, the Framework lacks detail with respect to the auto-collateralization feature, including the operational steps by which LCH SA would utilize the feature. As such, LCH SA is proposing to add a paragraph describing the auto-collateralization feature, including how LCH SA will use it in the event a buyer does not deliver cash for delivered securities. This Section will also be amended to specify the three core steps involved should LCH SA utilize the auto-collateralization feature. The first step includes injecting the full amount of liquidity to unlock the pledged securities. Step two includes transferring the securities from the CSD to the

3G Pool and step three includes obtaining liquidity through the 3G Pool, after applying applicable ECB haircuts. LCH SA is also clarifying that because of the aforementioned steps, the maximum potential liquidity drain will be equal to the ECB haircut for each debt type applied by the BdF when the securities withdrawn from the settlement system are then pledged to the 3G Pool to source liquidity.

LCH SA is proposing to remove the following sentence because of the inclusion of the detailed steps describing the auto-collateralization functionality:

> "that enables to obtain the liquidity necessary to the finalisation of transactions by pledging the security underlying the transaction at the BdF to get cash".

LCH SA is also clarifying that the maximum potential liquidity drain is modeled based on three elements: (1) the operational effectiveness and readiness of the transfer of securities from T2S to the 3G Pool for each issuer, as demonstrated on an annual basis through LCH SA's War Games exercises that are validated in governance; (2) actual limits for each debt type as defined in production and appropriately validated by all relevant stakeholders and Second Line Risk prior to any update as defined in a dedicated internal procedure; and (3) the current most conservative ECB haircut of the relevant debt category and step actually in force at the moment of the monitoring. With respect to the first element, LCH SA is clarifying that, in the event LCH SA is unable to effectively demonstrate the effective transfer of securities to the 3G Pool to source central bank liquidity as part of its War Games exercises, the haircut applied to the impacted issuer will be set at 100% and the corresponding liquidity need modelled will be equal to the full amount to be injected to reimburse the auto-collateral credit at end of day. LCH SA is also amending Section 6.5 (Appendix 5: Liquidity Risk Monitoring Reports) to provide an example intraday liquidity report that will be used to monitor for purposes of the second element

referenced above. The previous report is therefore deleted as not accurate anymore. In addition, LCH SA is specifying that any changes to the ECB haircuts considered by the model or the auto-collateralization limits will be automatically reflected in the Framework modelling. LCH SA is also specifying that in the case of a distinct ECB category and haircut step and/or different operational readiness to transfer securities in bulk from T2S to the 3G Pool between different issuers assigned to the same DCA, the allocated portion of the limit to each issuer will be defined based on the average daily settlement obligation per security over the last year for purposes of computing the liquidity impact.

LCH SA is also proposing to delete the table reflecting the limits by settlement platform and activity as of March 30, 2022, and the associated footnotes. This table and related footnotes are primarily being removed because LCH SA will instead apply a more dynamic approach to determining the maximum liquidity drain that could occur by following the steps referenced above. An example of liquidity reporting is provided in Appendix 6.5 for informational purposes only and specifying that the model may utilize updated figures (to be defined in accordance with the specifications outlined in Section 1.6.2.4). The reference to applying an 11% haircut to ECB securities is being removed, as LCH SA will instead apply the current most conservative ECB haircut of the relevant category and step. LCH SA is also proposing to delete reference to the specific previous War Games exercises performed to demonstrate operational effectiveness for purposes of pledging securities to the 3G Pool in 2019 and 2021. This reference is now covered by the first element specified above regarding how LCH SA will determine operational effectiveness and readiness for issuers moving forward (*i.e.*, through its War Games exercises performed each year).

Collectively, these changes to the auto-collateralization feature described in the Framework do not directly impact the Framework methodology for calculating the LCR or the Operational Target. The respective formulas will remain the same, but instead when incorporating the liquidity need deriving from the auto-collateral functionality, the formulas will utilize dynamic input data (rather than static values defined in the LRMF), such as the most recent ECB haircuts and the actual auto-collateralization limits set up in production at the time of monitoring and according with the specific methodology described above. The purpose of the revisions to Section 1.6.2.4 is to enhance the clarity of the Framework by describing more explicitly the general steps considered by the CCP when modelling the potential liquidity need arising from the auto-collateralization functionality in the settlement platforms.

Section 4.1.2: Model Inputs and Variable Selection

As part of determining its overall liquidity needs on an ongoing basis, LCH SA models for its operational liquidity needs as part of the Framework. The operational liquidity requirement is valued through the Operational Target in the daily liquidity stress tests. The requirement represents the amount of liquidity required to satisfy the liquidity needs borne from the ongoing operational management of LCH SA in a stressed environment. This requirement is therefore not related to a clearing member default. LCH SA specifies this liquidity requirement drivers it models in the Framework in Section 4.1.2. LCH SA is proposing to amend certain provisions of this Section by revising the statement related to the repayment of excess cash and excess ECB-eligible securities posted by members as a liquidity need to state the "partial" repayment of excess. As part of the Proposed Rule Change, LCH SA is adjusting how it models for the treatment of excess collateral and this change is being made to align for the revised treatment of excess collateral throughout the Framework (*see* Section 4.1.5 below). The

clarification of liquid resources-eligible securities is being made to reflect that a liquidity need arises from the withdrawal of liquidity resources and thus the reduction in available liquidity. An amendment to note 16 is also being made to clarify that non-euro cash and CBGs are excluded as liquidity resources because LCH SA does not consider USD and GBP cash posted by members as liquid resources for conservative reasons, and for CBG, LCH SA does not have the ability to use such assets for liquidity purposes unless such member is in default. To align with the clarification made regarding liquidity needs that may arise from clearing member substitution of liquid resources to non-liquid resources (*see* the proposed changes to Section 4.1.5.(e) below), LCH SA is amending Section 4.1.2(e) to clarify that the substitution refers to liquid resources (not just cash or ECB-eligible collateral) to non-liquid resources.

Moreover, a new liquidity need in Section 4.1.2(j) is being added to specify that in the calculation of the Operational Target there will be a provision to model the switch from collateral posted under FTT, and therefore included in liquid resources, to collateral posted under the pledge regime, and therefore considered as non-liquid resources if the member posting the collateral is not in default. This conforms with the change made to Section 1.6.2.3.

Section 4.1.4: Mathematical formula, derivation and algorithm, and numerical approximation

Finally, to conform with the changes made to Section 1.6.2.3, LCH SA will add as a liquidity requirement captured in the Framework (as Section 4.1.2(j)), the switch from collateral posted under FTT to the pledge regime. Because of the addition of the needs arising from the switch from FTT to pledge, LCH SA will add to Section 4.1.4 the needs arising from the switch as an input to the Operational Liquidity Requirements. Specifically, LCH SA's Operational

Liquidity Requirements now comprise all items referenced in Section 4.1.2 (including Section 4.1.2(j)).

Section 4.1.5: Model Assumptions (Treatment of Excess Collateral)

LCH SA is also proposing to amend how it models for the treatment of excess collateral of non-defaulting clearing members in its Operational Target calculation of the Framework. Currently under LCH SA's cover 2 Framework, LCH SA considers that in a default, non-defaulting members will withdraw all their excess collateral following a stress event. In contrast, excess collateral is considered a liquidity resource for defaulting members.

LCH SA is proposing to modify the assumption that all excess collateral is withdrawn immediately following a stress event in its Framework. Specifically, LCH SA would like to revise the assumption that all excess collateral will be withdrawn following the declaration of default in the LCR or during the non-default market stress scenario of the Operational Target standalone calculation. This proposed change would refine the Framework by more closely aligning it with current clearing member behaviors and with the appropriate liquidity horizon period (currently modeled at seven days), while at the same time maintaining a conservative assumption. To facilitate this change, LCH SA is proposing to model for a partial withdrawal of excess collateral based on an indicator calibrated with empirical clearing member data. The partial withdrawal will be based on the second worst observed relative variation experienced over seven days, capped at the biggest historical reduction in excess collateral over the liquidity horizon, utilizing up to ten years of historical data, initiating in 2018.

The rationale for considering the second highest observed historical relative excess decrease is that it represents a confidence level of 99.9% related to a stress event compared to the standard 99.7% used for margin computation in LCH SA. Moreover, as the value will be

automatically integrated in the daily Operation Target as part of a dedicated monitoring, it allows ample time for LCH SA's Second Line Risk team to investigate any data issues or any data outliers without an immediate direct impact on production.

LCH SA is proposing to calibrate this indicator daily, thereby incorporating each new daily data point. In order to be consistent with the Framework, LCH SA is also proposing to align the withdrawal over a seven-day period (*i.e.*, the liquidity horizon), rather than the current three-day period. Finally, LCH SA is proposing to implement an enhancement of the daily back testing, specific to this change, to ensure any changes in the partial withdrawal scenario are flagged to senior management. Any new extreme (*i.e.*, second biggest seven days relative margin reduction or seven days biggest absolute cap amount) will automatically be integrated in the Framework the following day and will be shared with the Head of Market Risk and the Chief Risk Officer. In addition, a deep analysis will be performed to assess the level of excess reduction modelled each intermediary day of the liquidity horizon considering the drivers of the new peak. Results of this exercise may lead to a review of the split of excess collateral reduction modelled in the intermediary days within the liquidity horizon and any change to the Framework would therefore require review and approval by the ERCo.

To reflect this methodological change in the Framework, LCH SA is proposing to amend Section 4.1.5(d) by clarifying the description of how the withdrawal of excess collateral is modelled. Specifically, LCH SA is proposing to state that a portion of excess collateral is withdrawn over the seven-day liquidity horizon period, with the target estimated excess collateral amount assessed based on historical data dating back to 2018. LCH SA is also proposing to specify that the calibration of this amount will be updated daily as new data becomes available and up to a ten-year lookback period. As part of this change, Section 4.1.5

will also be amended to add that the relative reduction in excess collateral will correspond to the second worst observed relative decrease of excess collateral over a seven-day period, with a cap of the highest absolute reduction amount observed over seven days. LCH SA will provide additional details in Section 4.1.5 in the form of a specific formula as well as the list of assumptions made to clarify how the reduction in excess collateral will be applied. Previous references to the assumptions of excess collateral withdrawal on day T, day T+1 and day T+2 will be removed and replaced with the following clarifications:

- The overall compounded excess reduction over the liquidity horizon will correspond to the second worst relative rate observed over seven days excess reduction, over the calibration period capped at the highest absolute reduction amount observed;
- The biggest reduction relative rate observed on a single day will be applied the first day;
- In each intermediary day, the compounded excess reduction is above the 99.7% percentile confidence interval within the historical window observed;
- LCH SA assumes that it will not observe any increase of excess from members over the liquidity horizon; and
- The assumptions will be monitored daily, such that if a new second worst relative rate is observed, it will automatically be reflected in the computation of the metric.

LCH SA is also proposing to amend note 18 to add that, in addition to DKK, NOK, SEC, AUD, CAD, CHF and JPY securities, collateral belonging to FCM/BD clients and Portuguese and Finnish securities deposited through a triparty arrangement are excluded from liquidity assets in excess collateral. LCH SA will also exclude non-euro cash and CBGs. This last change is being made for purposes of accuracy and does not represent a change in the methodology of the Framework or procedures of LCH SA.

Also, a new note 19 will be added to reference the member behavioral analysis documented in Section 6.2 "Appendix 2". Section 6.2 will be revised to clarify and provide additional evidence about the methodology detailed in Section 4.1.5. Specifically, in the bullet points summarizing the risk drivers, the phrase "Excess withdrawn" will be replaced by the phrase "Partial excess withdrawal" for purposes of clarity and to conform with similar changes made to the Framework.

Moreover, LCH SA is proposing to state it will assume that a portion of the amount of excess collateral will be withdrawn over seven days and this will substitute the current wording that states that the full amount is assumed to be withdrawn over three days. Moreover, the excess reduction will be based on the second worst relative downward reduction of excess, capped to an absolute amount corresponding to the highest absolute reduction amount observed in the lookback period. To support the change, LCH SA is proposing to add an example of how the intermediary daily excess reductions are modelled by the proposed methodology and included in a table reflecting the margin reduction rate, the cumulative reduction and the absolute value of the capped amount over each day of the seven-day period. LCH SA will also clarify that the figures presented in the example table are for informational purposes only and that the current model will utilize the most recent figures in accordance with Section 4.1.5.

LCH SA is also proposing to make a small amendment to Section 6.3 "Appendix 3: Reminder of SA's sources of liquidity and related risk drivers" with respect to excess collateral. That is, LCH SA is proposing to create a new category " Excess Collateral" and to state that the source of liquidity considered is the excess posted by member and add the text "Partial withdrawal of excess." LCH SA is further removing the specific reference to excess cash collateral, as the proposed wording is more aligned to the methodology presented in Section

4.1.5(d). LCH SA is also proposing to amend Section 6.4 "6.4 Appendix 4: Liquidity risk drivers synthesis by reports". Specifically, the column labelled "Excess" under "BAU" will be amended to reflect that instead of 100 percent of excess collateral being withdrawn, LCH SA will utilize the second worst relative withdraw of excess collateral capped at the highest reduction amount observed, for each Operational Target, LCR Cover 2 for non-defaulting members and LCR Euronext Clearing. Changes to Sections 6.3 and 6.4 will be made to align with the changes made to Section 4.1.5.

To accurately account for the switch of liquid resources to non-liquid resources in the assumptions of the Framework, LCH SA is proposing to amend Section 4.1.5(e) to include details on the new proposed calculation and underlying assumptions. To align with changes performed in 4.1.2, LCH SA clarifies that the substitution refers to liquid resources (and not only cash or ECB-eligible collateral as reported in the header of the section 4.1.5 (e) in the previous version of the Framework) to non-liquid resources. The result of the calculation represents the target estimated switch over a liquidity horizon of seven days and is based on historical data calibrated daily. LCH SA is proposing to build the time series of data utilized in the calculation until it reaches a maximum lookback period of 10 years (beginning in 2022). This revision also corresponds to the extension of the offering of securities in DKK, NOK, SEK, CAD, AUD, JPY, and CHF as eligible collateral. LCH SA is proposing a conservative assumption to this calculation by assuming clearing members will not switch non-liquid collateral with liquid collateral over the liquidity horizon and by applying the largest absolute net substitution amount historically observed on a single day over the lookback period, on the first day of the liquidity horizon. For each subsequent day, the compounded net substitution amount will be set above the 99.7% percentile confidence interval within the historical window observed. LCH SA will

choose the overall compounded switch value over the liquidity horizon that corresponds to the second worst absolute observed seven-day substitution over the period (the "net substitution amount"). The net substitution amount is calculated for each date and collateral account and is based on a multi-step process that includes the calculation of two metrics: a negative substitution amount, or an amount that reflects a clearing member switching liquid resources with non-liquid resources, and a positive substitution amount, or an amount that reflects a clearing member switching from non-liquid to liquid resources. The net substitution amount represents the difference between the negative substitution amount and the positive substitution amount. LCH SA chooses the aggregate cumulative sum over each day of the liquidity horizon. Consequently, all the references to the former methodology and the related assumptions are proposed to be removed as the substitution is not performed anymore on the maximum historical substitution observed over the last 7 days. To complement this proposed change, LCH SA is adding in Appendix 6.2 ("Members Behaviour Analysis") an illustrative example of the cumulative switch amounts from liquid resources to non-liquid resources over the seven-day liquidity horizon and reference in a new note 20. LCH SA will also clarify that the figures presented in the example table are for informational purposes only and that the current model will utilize the most recent figures in accordance with Section 4.1.5. The updated text replaces the previous paragraph in the previous version of the Framework that described the substitution methodology and gave an overall description of LCH SA's collateral composition and in particular the split between the ECB eligible EUR non cash collateral and non EUR collateral, which is now outdated as the collateral composition is a function of members' activity and the proposed new methodology adequately captures it more dynamically. In addition, the reference to reverse stress test results and concentration limits applied on non-cash collateral is being removed as this reference is no

longer relevant for the description of the new methodology, as it calibrates substitution amount on the basis of actual data observed over the lookback period. For the purpose of providing accuracy, the first bullet point in Appendix 6.2, where the risks driven are summarized as "Substitution cash to non cash (Banks keeping their cash)" will be replaced by "Substitution from Liquid Resources to non-Liquid Resources".

For the avoidance of doubt, LCH SA is also clarifying in Section 4.1.5(e) that the assumptions underlying the calculation of the switch amount will be monitored daily and compared against the parameters set up in production according to the described methodology with new extrema automatically reflected in metric calculations (amounts presented in Appendix 2 represent minimum values and may therefore fluctuate daily). Moreover, LCH SA is specifying that the net substitution amount is determined using allocated collateral. To enhance the clarity of the Framework, note 21 will be added to specify which collateral type is excluded from the computation of the substitution quantity, either because it is already considered in different provisions of the Framework, or because the substitution from Liquid Resources to non-Liquid Resources is not possible for the specific collateral type.

LCH SA is also proposing to amend Section 6.4 "6.4 Appendix 4: Liquidity risk drivers synthesis by reports". Specifically, the column labelled "Substitution" under "BAU" will be amended to align with Section 4.1.5(e) by reflecting that the Operational Target, the LCR Cover 2 and the LCR Euronext Clearing will all consider partial substitution to non-Liquid resources equal to the second worst substitution historically observed.

In addition, in Section 4.1.5(e), LCH SA is proposing to clarify that ECB eligible securities can be pledged to the central bank within the same day and the readiness must be tested and validated annually as part of the Liquidity Plan. That is, LCH SA will demonstrate its

ability to perform the necessary activities for purposes of meeting its regulatory obligations related to ensuring access to liquidity. Furthermore, the new language replaces the current reference to War Games Q3 2022 results, given these results are outdated.

Finally, the previously applied methodology for tracking asset switches from cash or ECB eligible securities to non-euro securities, equity lodging, and the use of central bank guarantees are no longer relevant and have been removed. These methodologies, which relied on observed maximum daily switches over a seven-day period, conservative equity lodging and the specific assumption about CBG usage are outdated and not relevant anymore. Instead, a more comprehensive and holistic methodology has been introduced as described above to ensure a more accurate and dynamic approach to liquidity management.

Section 4.1.5(g) is being modified to specify that in alignment with Sections 4.1.5(d) and 4.1.5(e) the assumptions used to estimate the margin reduction in the Operational Target are monitored daily and in case of new extreme, this will be automatically reflected in the computation of the metric. Moreover, note 24 is being modified to state that the lookback used to calibrate the assumption of margin reduction does not end in 2022 because it is instead updated daily. The same amendment will be reflected in Appendix 6.2 ("Members Behaviour Analysis"), with the addition of the sentence specifying that the numbers reported in the example (which reflect the split on each day of the margin reduction) are provided for informational purposes only and that the model may utilize updated figures, which will be defined in accordance with the specifications outlined in Section 4.1.5(g). A new Section 4.1.5(j) is being added to provide details on how LCH SA models for the scenario where clearing members switch the regime of how collateral is posted to the clearing agency (*i.e.*, FTT to pledge). The Framework will model this behavior by comparing the second biggest historical pledged amount observed over a 10-

year lookback period with the actual observed pledge collateral amount starting in 2022. The difference between these two components will correspond to the amount LCH SA will include in its daily liquidity requirements and is above the 99.7% percentile. Like the calculation for the switch from liquid to non-liquid resources, LCH SA will implement additional daily monitoring and recalibrate the calculation of this metric as necessary if a new maximum is observed.

In Appendix 6.2 ("Members Behaviour Analysis"), LCH SA will add the bullet "Substitution to pledge regime" among the list of the risk drivers and will conform with Section 4.1.5(j), such that the provision will be equivalent to the difference between the second biggest historical amount of pledge observed and the actual observed pledge collateral amount.

LCH SA will also amend the risk mitigation measure referenced in Section 6.3: Appendix 3 as it pertains to pledged securities as collateral. Specifically, LCH SA will clarify that the risk related to clearing members moving away from FTT in favor of the pledge regime is accounted for in the modelling of the LCR and the Standalone Operational Target. This element is not a change in the current practice with respect to the LCR computation but an alignment with the introduction of the modelling of the switch from FTT to the Pledge regime in 4.1.5(j).

LCH SA is also proposing to amend Section 6.4 "6.4 Appendix 4: Liquidity risk drivers synthesis by reports". Specifically, the column labelled "Substitution" under "BAU" will be amended to reflect that for the Operational Target, a provision to model the switch to the pledge regime according to Section 4.1.5(j) will be included, while for the LCR Cover 2 and LCR Euronext Clearing calculations, the pledge collateral will be set to the maximum limit allowed as described in Section 4.2.5.2.4 of the Framework. Language indicating the substitution would be the historical max including an increase of CBG payments would be deleted from each of these rows to reflect the different changes performed in section 4.1.5.(e) and (j) and the methodology

described in Section 4.2.5.2.4 of the Framework. The reference to Central Bank Guarantee is outdated and not relevant anymore and it is replaced by the updated methodology described herein. For clarify, LCH SA notes that contrary to the LCR, the Standalone Operational Target assumptions do not imply clearing member defaults, thus justifying the difference of modelling the pledge regime.

Section 4.2.5.2.1: Operational Target (considered in LCR Cover 2)

The LCR assumes the default of the biggest 2 groups in term of liquidity while the Standalone Operational Target assumes a market stress event not leading to a default. Therefore, when integrating the Standalone Operational Target into the computation of the LCR, it is adjusted to be more conservative and align with different assumptions taken in the LCR. LCH SA is proposing to make certain clarifying changes with respect to how the Standalone Operational Target is calculated for its LCR under a cover 2 approach. LCH SA will substitute the text "Repayment of Excess cash posted by members" with "Repayment of Excess posted by members" to align with what is described in section 4.1.5(d). Moreover, LCH SA is clarifying that it will utilize a more conservative assumption regarding how it models for the switch from FTT to pledge, whereby the pledged collateral will be set to the maximum limit allowed as described in Section 4.2.5.2.4 of the Framework.

LCH SA will make a conforming change in Section 4.3.5.4 related to the Standalone Operational Target in the LCR calculation for a Euronext Clearing default to align with this change of Section 4.2.5.2.1, as the described change applies to both LCR cover 2 and LCR Euronext Clearing.

In addition, the sentence: "The margin outflows calculated in the operational target and related to the cover 2 is removed for LCR since the CCP will fully use the collateral of the

defaulters" will be reworded to "The margin outflows calculated in the operational target and related to the cover 2 is removed from LCR liabilities since the CCP will fully use the collateral of the defaulters". This change is being made to add more clarity regarding how LCH SA calculates LCR liabilities.

In Section 4.3.2: "Model inputs and Variable selection" (related to LCR Euronext Clearing), LCH SA will correct a typo and revise the previous name of the interoperable CCP, "CC&G" to the current name, "Euronext Clearing".

Section 5.3.1: Independent Stress of Various Risk Factors

As part of its ongoing monitoring of the Framework, LCH SA performs independent reverse stress tests for certain risk factors that could result in a liquidity shortfall. One of these independent reverse stress tests involves a Eurozone downgrade of peripheral and core countries that triggers an increase in ECB haircuts, whereby the value of liquidity resources decreases by an amount resulting in a liquidity deficit. LCH SA is proposing to review the assumptions underpinning the stress scenario by noting that the simulated downgrade will be based on the maximum simultaneous downgrade notches that occurred over seven days for each of the four rating agencies acknowledged by the ECB, aggregated per type of debt (*i.e.*, Core/Peripheral). After computing the downgraded rating, LCH SA will use the rules defined by the central bank to assign each issuer a haircut category and a haircut step in order to apply the parameter aligned with the updated rating with a cap to step 3 (which is considered the most conservative haircut category applied by the ECB before collateral becomes ineligible for pledge). LCH SA notes that because of the historical measures taken by ECB during stressed periods (*e.g.*, Eurozone crisis) and the high quality of non-cash collateral, the ineligibility of issuers to pledge to the ECB is not considered a plausible scenario. LCH SA is also proposing additional conforming edits to align

with the clarifications made in Section 5.3.1 (*e.g.*, Section 5.3.2.3 "Macroeconomic Scenario" will be amended to align the assumptions made in Section 5.3.1) with the removal of the former assumptions that simulated a fixed effect on core and peripheral countries independently of a historical downgrade. LCH SA is making these changes to sovereign downgrade assumptions to address a Model Validation recommendation.

In addition, LCH SA will clarify in Section 5.3.2.3 that the table presented is an example of the aggregation of exposure for a member group during the combined reverse stress test that includes multiple defaults and is presented for illustrative purposes only.

Finally, LCH SA will also revise Appendix 6.2: "Members behaviour analysis", by removing the two charts and the global wording related to discussion around increase of margins and the specific case of Brexit. This reference is being removed as it is outdated and these elements are no longer part of the Framework methodology.

Appendix 6.7 – Stress scenarios list

LCH SA will clarify that the scenario list disclosed is for informational purposes only and represents the list of scenarios at the time of drafting the current version of the Framework. The actual computation of liquidity metrics is dependent on the actual scenarios used to calibrate the default fund for LCH SA's different services and thus may differ. Moreover, only the scenario labels will be left in the Framework, as this is more applicable for scenario identification than scenario numbers.

Appendix 7 – Operating Model and main data source used to run liquidity metrics

To address an independent Model Validation recommendation, a new section will be integrated to disclose a high-level functional workflow regarding the computation of liquidity

metrics. The chart will be disclosed for informational purposes only, such that any revision will be made if LCH SA amends the methodology or the Framework.

New Procedure: LCR Metric Compliant with SEC Rules and Established Practices

To complement the changes to the Framework, LCH SA is also proposing to create a new procedure for the purposes of describing the Liquidity Resources including in its LCR calculation for the purposes of complying with the SEC's cover 1 liquidity requirements. The procedure will detail the specific LCR methodology, the escalation process for any potential breaches in the specific cover 1 metric, the frequency of LCH SA's review of the LCR methodology and the controls in place regarding the calculation and ongoing review of the LCR metric compliant with the SEC's cover 1 liquidity requirements and established practices.

(b) Statutory Basis

LCH SA believes the Proposed Rule Change is consistent with the requirements of Section 17A of the Act[5] and regulations thereunder applicable to it. Section 17A(b)(3)(F) of the Act requires, *inter alia*, that the rules of a clearing agency should be designed to "promote the prompt and accurate clearance and settlement of securities transactions and, . . . to assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible[.]"[6]

The Framework is being amended primarily to enhance details about how LCH SA models for the liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature in its Framework and amend how LCH SA accounts

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5 15 U.S.C. 78q-1.

6 15 U.S.C. 78q-1(b)(3)(F).

for non-defaulting members' excess collateral in the calculation of the Standalone Operational Target as well as the LCR in its Framework. The proposed changes to the Framework regarding the auto-collateralization feature will allow LCH SA to utilize dynamic input data, including the most recent ECB haircuts and the actual auto-collateralization limits set up in production at the time of monitoring. In addition, the Framework will be amended to provide a more targeted auto-collateralization limit, such that the allocated portion of the limit for each issuer, in the case where there is a distinct ECB category and haircut step and/or different operational readiness to transfer securities in bulk from T2S to the 3G Pool between different issuers assigned to the same DCA, will be defined based on the average daily settlement obligation per security over the last year for purposes of computing the liquidity impact. The proposed changes to the treatment of excess collateral in the Framework will allow LCH SA to modify the previous assumption that 100 percent of excess collateral is withdrawn immediately following a stress event in its Framework, to more closely align it with current empirical clearing member behaviors and with the appropriate liquidity horizon period. Collectively, these change would strengthen LCH SA's ability to comprehensively manage its liquidity risks by ensuring it maintains sufficient liquid resources to facilitate the prompt and accurate clearance and settlement of securities transactions and assure the safeguarding of securities and funds in its control, consistent with Section 17A(b)(3)(F) of the Act.[7]

Regulation 17Ad-22(e)(7)(i)[8] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing

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7 Id.

8 17 CFR 240.17Ad-22(e)(7)(i).

agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum, . . . [m]aintaining sufficient liquid resources at the minimum in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of foreseeable stress scenarios that includes, but is not limited to, the default of the participant family that would generate the largest aggregate payment obligation for the covered clearing agency in extreme but plausible market conditions.[9]

LCH SA is proposing to provide additional specificity in its Framework to more accurately reflect how it models liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature. Specifically, LCH SA is proposing to detail the operational steps by which LCH SA would utilize the auto-collateralization feature, as this information is not currently in the Framework. LCH SA is also proposing to amend the Framework to more accurately reflect real-time information, including the current ECB haircut schedule for sovereign debt securities and the limits determined through real-time monitoring for each debt type. In addition to the proposed changes related to the auto-collateralization feature, the proposed changes to the treatment of excess collateral would modify how LCH SA quantifies the liquidity drain related to Clearing Member withdrawal behaviors in a stress event. Under the Proposed Rule Change, the withdrawal of excess collateral would be modeled based on Clearing Member historical behavior and aligned with the seven-day liquidity horizon. That is, LCH SA will model for the partial withdrawal of excess collateral that is based on the second worst observed relative variation experienced over seven days, capped at the

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9 Id.

biggest historical reduction in excess collateral over the liquidity horizon. This process would utilize up to ten years of historical data and the result will be automatically integrated in the Operation Target on a daily basis and form the basis of a dedicated monitoring process. The Proposed Rule Change will also clarify that LCH SA will monitor how excess collateral is modelled in the intermediary days within the liquidity horizon and that any change to the assumptions in the Framework will require approval by the ERCo.

LCH SA is also proposing to create a new procedure to describe its process for calculating the Liquidity Resources included in its LCR calculation to comply with the SEC's cover 1 liquidity requirements, detail the specific LCR cover 1 methodology, how it will escalate breaches in the daily review of the specific cover 1 metric, the frequency of LCH SA's review of the LCR methodology more broadly and the controls in place for how LCH SA will calculate and monitor the LCR metric to ensure ongoing compliance with the SEC's cover 1 liquidity requirements and established practices.

Based on the foregoing, LCH SA believes the Proposed Rule Change will allow it to more effectively measure, monitor, and manage its liquidity risk, including by maintaining sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations consistent with Regulation 17Ad-22(e)(7)(i)[10].

Regulation 17Ad-22(e)(7)(ii)[11] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the

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10 Id.

11 17 CFR 240.17Ad-22(e)(7)(ii).

covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum, . . . [h]olding qualifying liquid resources sufficient to meet the minimum liquidity resource requirement under paragraph (e)(7)(i)[12] of [the SEC's liquidity rules] in each relevant currency for which the covered clearing agency has payment obligations owed to clearing members.[13] In addition, regulation 17Ad-22(e)(7)(vi)(A)[14] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum, . . . [d]etermining the amount and regularly testing the sufficiency of the liquid resources held for purposes of meeting the minimum liquid resource requirement under [the SEC's liquidity rules] by . . . [c]onducting stress testing of its liquidity resources at least once each day using standard and predetermined parameters and assumptions.[15]

To address a regulatory examination observation and for purposes of simplifying how this information is presented in the Framework , LCH SA is making clarifying changes to how it calculates liquidity resources for purposes of meeting the minimum liquid resource requirements under Exchange Act rule 17Ad-22(e)(7)[16]. In addition to adding detail on the composition of liquid resources and to address an independent Model Validation observation and a regulatory

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12 17 CFR 240.17Ad-22(e)(7)(i).

13 17 CFR 240.17Ad-22(e)(7)(ii).

14 17 CFR 240.17Ad-22(e)(7)(vi)(A).

15 Id.

16 17 CFR 240.17Ad-22(e)(7).

examination finding, LCH SA is proposing to amend how it models for the substitution of liquid resources to non-liquid resources in its Framework. In doing so, LCH SA will quantify this substitution via a proxy by calibrating over the seven-day liquidity horizon using historical observations. To ensure this value remains accurate in the calculation of liquid resources, LCH SA will perform daily monitoring and calibrate the value should results reflect different assumptions and document this process in a procedure. In the case of any liquidity shortfalls, LCH SA will escalate to senior management to take any necessary actions.

In addition, LCH SA is also proposing to amend how it models excess collateral withdrawal by leveraging the historical behavior of its membership and using a lookback period that includes times of stress. LCH SA s also proposing to include in the calculation of the Operation Target standalone a provision to model the potential switch of collateral from the full title transfer regime to the pledge regime calibrated on the historical behavior of its membership. This change will to be applied to the LCR, whereby this currently assumes more conservatively that all members that can pledge, will do so up to the maximum capacity possible.

Finally, LCH SA proposes to update its Framework for independent reverse stress tests by revising the assumptions underlying its simulated Eurozone downgrade scenario, including the use of maximum downgrade notches from recognized rating agencies and recalibration of haircut categories per central bank rules. LCH SA is making these changes to the sovereign downgrade assumptions to address a Model Validation recommendation.

LCH SA is also clarifying that it will only include non-cash resources in its liquidity resources under a cover 1 scenario after performing a comprehensive analysis and presenting to the Board not less than annually to ensure such prearranged funding arrangements are deemed

highly reliable even in extreme but plausible market conditions.[17] This clarification will align with LCH SA's Liquidity Plan and Liquidity Risk Management Policy and LCH SA therefore believes that the Proposed Rule Change is consistent with Regulation 17Ad-22(e)(7)(ii)[18] for purposes of holding sufficient liquid resources and Regulation 17Ad-22(e)(7)(vi)(A)[19] for purposes of adequately modelling liquidity stress testing parameters and assumptions.

Finally, Regulation 17Ad-22(e)(7)(vi)(B)[20] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum determining the amount and regularly testing the sufficiency of the liquid resources held for purposes of meeting the minimum liquid resource requirement under Regulation 17Ad-22(e)(7)(i), by at a minimum, . . . conducting a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources, and considering modifications to ensure they are appropriate for determining the clearing agency's identified liquidity needs and resources in light of current and evolving market conditions.[21]

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17 Id.

18 17 CFR 240.17Ad-22(e)(7)(ii).

19 17 CFR 240.17Ad-22(e)(7)(vi)(B).

20 Id.

21 Id.

As part of the process to assess the sufficiency of liquid resources held to meet the minimum liquid resource requirement set forth in Regulation 17Ad-22(e)(7)(i)[22], LCH SA identified the need to enhance details about how it models for the liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature in its Framework and amend how it accounts for non-defaulting members' excess collateral in the calculation of the operational target in its Framework. With respect to the auto-collateralization feature described in the Framework, LCH SA identified a need to:

(1) add detail with respect to the auto-collateralization feature, including the operational steps by which LCH SA would utilize the feature;

(2) clarify that the maximum potential liquidity drain modelled is based on the operational effectiveness and readiness of the transfer of securities from T2S to the 3G Pool for each issuer, as demonstrated on an annual basis through LCH SA's War Games exercises,

(3) specify how the actual limits for each debt type are determined and validated by internal stakeholders;

(4) clarify that the most conservative ECB haircut of the relevant debt category and step currently in force will apply when determining the maximum liquidity drain; and

(5) make other updates and conforming changes to align with proposed revisions in (1) through (4) above.

LCH SA also identified a need to modify how LCH SA accounts for non-defaulting members' excess collateral in the calculation of the Standalone Operational Target as well as LCR

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22 17 CFR 240.17ad-22(e)(7)(i).

in its Framework. Specifically, LCH SA identified the need to modify the Framework to quantify the withdrawal of excess collateral over a seven-day liquidity horizon based on the second worst observed relative variation experienced over seven days, capped at the biggest historical reduction in excess collateral, utilizing up to ten years of historical data, and implement daily back testing to ensure any changes in the partial withdrawal scenario are flagged to senior management, such that any new extreme would automatically be integrated in the Framework the following day. LCH SA is also proposing additional updates and confirming changes to the Framework for consistency. LCH SA believes the Proposed Rule Change is therefore appropriate for determining its liquidity needs and resources in light of current and evolving market conditions, consistent with Regulation 17Ad-22(e)(7)(vi)(B)[23].

Item 4. Self-Regulatory Organization's Statement on Burden on Competition

Section 17A(b)(3)(I) of the Act requires that the rules of a clearing agency not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[24] LCH SA does not believe the Proposed Rule Change would have any impact, or impose any burden, on competition. The Proposed Rule Change does not address any competitive issue or have any impact on the competition among central counterparties. LCH SA operates an open access model, and the Proposed Rule Change will have no effect on this model.

Item 5. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants or Others

Written comments relating to the Proposed Rule Change have not been solicited or received. LCH SA will notify the Commission of any written comments received by

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23 17 CFR 240.17ad-22(e)(7)(vi)(B).

24 15 U.S.C. 78q-1(b)(3)(I).

LCH SA.

Item 6. Extension of Time Period for Commission Action

LCH SA does not consent to the extension of the time period listed in Section 19(b)(2) of the Exchange Act for Commission action.

Item 7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2) or Section 19(b)(7)(D)

Not applicable.

Item 8. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission

The proposed rule change is not based on the rules of another self-regulatory organization or the Commission.

Item 9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act

Not applicable.

Item 10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

Item 11. Exhibits

Exhibit 1 Not Applicable.

Exhibit 1A Completed Notice of Proposed Rule Change for publication in the Federal Register.

Exhibit 2 Not Applicable.

Exhibit 3 Form, Report, or Questionnaire (**Omitted and filed separately with the Commission. Confidential treatment pursuant to 17 CFR 240.24b-2 being requested**):

Exhibit 3.1 – LCH_SA_Liquidity_SEC_output_2025031.

Exhibit 3.2 – LCH LRMF 6.3 RFI – 3.13.2025 – final (LCH SA Response).

Exhibit 3.3 – QA LRMF 6.3_v2.

Exhibit 3.4 – LCH LRMF 6.3 RFI (LCH SA Response).

Exhibit 3.5 – ERCo DA M24.x 2024-1128 Approved.

Exhibit 3.6 – Example_substitution_QLR_NQLR.

Exhibit 3.7 – Statistics_cash_non_cash_2024.

Exhibit 4 Not Applicable.

Exhibit 5 Text of the proposed rule change (**Omitted and filed separately with the Commission. Confidential treatment pursuant to 17 CFR 240.24b-2 being requested**):

Exhibit 5.1 – Liquidity Risk Modelling Framework V.6.3.

Exhibit 5.2 – CALRM LCR metric compliant with US SEC rules and established practices.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, Banque Centrale de Compensation has caused this filing to be signed on its behalf by the undersigned hereunto duly authorized.

BANQUE CENTRALE DE COMPENSATION

By:_____
Anne Favé
Interim Chief Compliance Officer

EXHIBIT 1A

SECURITIES AND EXCHANGE COMMISSION
(Release No. _____; File No. SR-LCH SA-2025-003)

_____, 2025

Self-Regulatory Organizations; LCH SA; Notice of Filing of Proposed Rule Change Relating to Revisions to its Liquidity Risk Modelling Framework

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),[1] and Rule 19b-4,[2] notice is hereby given that on _____, 2025, Banque Centrale de Compensation, which conducts business under the name LCH SA ("**LCH SA**"), filed with the Securities and Exchange Commission ("**Commission**") the proposed rule change ("**Proposed Rule Change**"), as described in Items I, II and III below, which Items have been prepared by the clearing agency. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Clearing Agency's Statement of the Terms of Substance of the Proposed Rule Change

LCH SA is proposing to amend its Liquidity Risk Modelling Framework (the "**Framework**"), which describes the Liquidity Stress Testing framework by which the Collateral and Liquidity Risk Management department ("**CaLM**") of LCH SA assures that LCH SA has enough cash available to meet any financial obligations, both expected and unexpected, that may arise over the liquidation period for each of the clearing services that LCH SA offers (the "**Proposed Rule Change**").[3] The text of the Proposed

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1 15 U.S.C. 78s(b)(1).

2 17 CFR 240.19b-4.

3 LCH SA, a subsidiary of LCH Group and an indirect subsidiary of the London Stock Exchange Group plc ("LSEG"), manages its liquidity risk pursuant to, among other policies and procedures, the Group Liquidity Risk Policy and the Group Liquidity Plan applicable to each entity within LCH Group. In addition to its CDSClear service, LCH SA provides clearing services in connection with

Rule Change is provided in Exhibit 5.[4] The implementation of the Proposed Rule Change will be contingent on LCH SA's receipt of all necessary regulatory approvals.

II. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, LCH SA included statements concerning the purpose of and basis for the Proposed Rule Change and discussed any comments it received on the Proposed Rule Change. The text of these statements may be examined at the places specified in Item IV below. LCH SA has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Proposed Rule Change is being adopted to (1) enhance details about how LCH SA models for the liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature in its Framework, (2) amend how LCH SA accounts for non-defaulting members' excess collateral in the calculation of the Standalone Operational Target and Liquidity Coverage Ratio ("**LCR**") in its Framework, (3) quantify LCH SA's liquidity needs arising from clearing members replacing liquid resources with non-liquid resources for liquidity needs modelling, (4) clarify how LCH SA accounts for clearing members switching their respective pledging

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cash equities and derivatives listed for trading on Euronext (EquityClear), commodity derivatives listed for trading on Euronext (CommodityClear), and tri-party Repo transactions (RepoClear). LCH SA also maintains an interoperability link with Euronext Clearing, formerly Cassa di Compensazione e Garanzia, in Milan, Italy.

[4] All capitalized terms not defined herein have the same definition as in the Framework, unless otherwise stated.

arrangement for collateral included in LCH SA's Standalone Operational Target and (5) enhance the Framework to simulate a sovereign country rating downgrade when computing liquidity reverse stress tests. LCH SA is proposing to make other non-substantive changes to correct errors and for purposes of conformity.

Section 1.6.1 – Liquidity Sources

LCH SA is amending Section 1.6.1 by removing reference to cross-currency bilateral repo that involved a bilateral repo and an FX transaction (whereby LCH SA may pledge collateral denominated in one currency for cash denominated in a different currency as a liquidity resource to meet its liquidity resource requirement). LCH SA is making this change because it currently only uses triparty repo to perform cross-currency transactions under which the FX conversion is managed by the triparty agent. This amendment will also align the Framework with the LCH SA Liquidity Plan (the "**Liquidity Plan**"). The same change will be reflected in Appendix 6.5: "Liquidity risk monitoring reports" for consistency as well as to conform with Section 1.6.1.3.

LCH SA is also replacing reference to "FX spot market transaction" with "FX operation", which LCH SA believes more accurately reflects the process. Finally, LCH SA is clarifying that there is no multicurrency committed lines anymore given the removal of the reference to the Norges bank secured committed facility. Therefore, only an uncommitted overdraft facility with an international bank remains in place.

Section 1.6.1.1 – Collateral Transfer to 3G pool

LCH SA is proposing an amendment to remove reference to "successfully tested in 2016" to clarify that the operational effectiveness of the transfer of collateral to the 3G

pool is tested on an annual basis as part of the war games exercises (*i.e.*, instead of having a singular reference to 2016).

Section 1.6.1.3 – Synthesis

LCH SA is proposing to amend the summary table in Section 1.6.1.3 to align with the changes made to the preceding paragraphs. Specifically, reference to cross-currency bilateral repo transactions will be removed because LCH SA no longer utilizes these transactions to raise liquidity sources, and instead leverages cross currency triparty repo transactions. Moreover, the reference to FX transactions will be removed because the triparty cross currency repo transactions do not entail FX transactions, and instead, the FX conversion is managed by the triparty agent. LCH SA is also proposing to clarify that CaLM will demonstrate to the Board these prearranged funding arrangements used to raise euro liquidity are highly reliable even in extreme but plausible market conditions, as part of the annual review of the Liquidity Plan. In making this change, LCH SA is removing the historical reference to liquidity resources raised to meet its requirements in 2021 and 2022, as this reference is outdated and no longer applicable. For securities received from triparty reverse repo transactions where the agent is Clearstream as a Central Securities Depository, LCH SA is specifying that such securities are not considered Liquid Resources because LCH SA does not have the right to rehypothecate these securities for purposes of raising liquidity. This updated text will substitute the previous historical reference to the Clearstream triparty repo facility and its exclusion from liquid resources, as LCH SA has not completed the technical setup needed to rehypothecate such securities. LCH SA also proposes to clarify that collateral ineligible to be pledged to the ECB to raise liquidity via triparty repo transaction refers to USD-

(U.S. Treasuries) and GBP-denominated securities (UK Gilts) only. LCH SA is also removing reference to a secured committed credit line with Norges Bank as an available liquidity resource, as this facility is no longer in place. Since LCH SA has access to an uncommitted credit line with an international bank to cover overdrafts up to €10mm, LCH SA is clarifying that this resource is uncommitted, given removal of the reference to the Norges bank secured committed facility. LCH SA will also amend Section 6.3: Appendix 3 and Section 6.5: Appendix 5 to reflect the removal of the Norges Bank facility for purposes of conforming throughout the Framework.

Section 1.6.2.3: Operational Liquidity Requirements

In Section 1.6.2, LCH SA describes the three main sources of liquidity needs for the clearing agency as those arising from member defaults, liquidity needs arising from interoperating CCP defaults and needs related to operational liquidity requirements. With respect to operational liquidity needs, LCH SA is proposing to clarify in Section 1.6.2.3 that a need may arise from the substitution of liquid resources to non-liquid resources upon member request. The previous reference to substitution of cash collateral by members was incomplete as all liquid resources could be considered as a need if switched to non-liquid resources. As part of this revision, LCH SA is removing reference to the need arising from an increase in Central Bank Guarantee ("**CBG**") payments because there is no dual payment solution for members using the CBG solution and therefore no possibility to switch to another available regime of collateral if the CBG solution is used by a counterparty. Finally, LCH SA is adding the liquidity need arising from clearing members switching to a pledge regime (*i.e.*, from FTT to pledge) for collateral posted as margin. Collateral posted under the pledge regime is not considered a component of

liquid resources, but rather an operational liquidity need, given that LCH SA does not have rehypothecation rights to such collateral unless the member posting it is in default.

Section 1.6.2.4: Zoom on the settlement, its benefits and issues (Auto-Collateralization Feature)

As part of its daily settlement process, LCH SA has the ability to leverage the auto-collateralization feature for certain ECB-eligible securities as part of the ECB's T2S service for securities settlement. The ECB's T2S auto-collateralization service enables LCH SA to facilitate timely settlement of a RepoClear transaction in the event of a timing mismatch between the security delivery and the cash delivery in the settlement platform. Specifically, should a seller deliver ECB-eligible securities before delivery of cash by the buyer, the T2S auto-collateralization service will allow LCH SA to pledge these securities for cash at the applicable central security depository ("**CSD**"). LCH SA is therefore able to settle the seller instructions against the pledge of these securities as collateral for the liquidity borrowed from the T2S service.

If LCH SA is not able to find a legitimate buyer for delivering the securities within the end of day and to avoid any fees chargeable to LCH SA for securities pledged overnight, LCH SA must inject the full cash equivalent amount to release the securities from the auto-collateralization account and subsequently transfer these securities from the CSD to the BdF 3G Pool. In doing so, LCH SA can obtain liquidity from the BdF after adjusting for any applicable haircuts. LCH SA quantifies the liquidity need arising from this transaction by multiplying a pre-defined auto-collateralization limit set by the CCP for each Dedicated Cash Account ("**DCA**"), corresponding to a pool of securities in the settlement platform, by an applicable ECB haircut for each sovereign debt type. For the

case in which multiple issuers are assigned to the same DCA, the auto-collateralization limit is set pro rata for each issuer based on the average daily settlement percentage from the previous year. LCH SA takes the sum of the results of potential liquidity impact for each sovereign debt issuer and reduces by this total the assets in the numerator of the LCR, as well as the resources to be compared against the Operational Target. All else being equal, an increase in any one of these parameters will result in a decrease in the LCR and Operational Target Key Risk Indicator ("**KRI**") and vice versa.

The current Framework therefore computes the auto-collateralization liquidity need by leveraging the specific limits set up in production and approved by LCH SA's Second Line Risk function and LCH SA management, in addition to utilizing the current ECB haircut schedule. The ECB assigns haircuts based on several parameters, including the type and issuer of the debt instrument, the residual maturity and overall credit quality. For example, the ECB as of August 2024 applies a larger haircut to sovereign debt issued by Italy compared with France for the same residual maturity due to the overall credit quality difference, among other factors. For Italy, Germany, Spain and Belgium, the current Framework applies 100% haircut for conservative reasons because the operational effectiveness of the "bulk" transfer from T2S to the 3G Pool was only recently demonstrated via a conclusive test in June 2024.

LCH SA is proposing to amend Section 1.6.2.4 of the Framework to provide additional clarification on the auto-collateralization feature that was not explicit in the current version of the Framework. Currently, the Framework lacks detail with respect to the auto-collateralization feature, including the operational steps by which LCH SA would utilize the feature. As such, LCH SA is proposing to add a paragraph describing

the auto-collateralization feature, including how LCH SA will use it in the event a buyer does not deliver cash for delivered securities. This Section will also be amended to specify the three core steps involved should LCH SA utilize the auto-collateralization feature. The first step includes injecting the full amount of liquidity to unlock the pledged securities. Step two includes transferring the securities from the CSD to the 3G Pool and step three includes obtaining liquidity through the 3G Pool, after applying applicable ECB haircuts. LCH SA is also clarifying that because of the aforementioned steps, the maximum potential liquidity drain will be equal to the ECB haircut for each debt type applied by the BdF when the securities withdrawn from the settlement system are then pledged to the 3G Pool to source liquidity.

LCH SA is proposing to remove the following sentence because of the inclusion of the detailed steps describing the auto-collateralization functionality:

> "that enables to obtain the liquidity necessary to the finalisation of transactions by pledging the security underlying the transaction at the BdF to get cash".

LCH SA is also clarifying that the maximum potential liquidity drain is modeled based on three elements: (1) the operational effectiveness and readiness of the transfer of securities from T2S to the 3G Pool for each issuer, as demonstrated on an annual basis through LCH SA's War Games exercises that are validated in governance; (2) actual limits for each debt type as defined in production and appropriately validated by all relevant stakeholders and Second Line Risk prior to any update as defined in a dedicated internal procedure; and (3) the current most conservative ECB haircut of the relevant debt category and step actually in force at the moment of the monitoring. With respect to the first element, LCH SA is clarifying that, in the event LCH SA is unable to effectively

demonstrate the effective transfer of securities to the 3G Pool to source central bank liquidity as part of its War Games exercises, the haircut applied to the impacted issuer will be set at 100% and the corresponding liquidity need modelled will be equal to the full amount to be injected to reimburse the auto-collateral credit at end of day. LCH SA is also amending Section 6.5 (Appendix 5: Liquidity Risk Monitoring Reports) to provide an example intraday liquidity report that will be used to monitor for purposes of the second element referenced above. The previous report is therefore deleted as not accurate anymore. In addition, LCH SA is specifying that any changes to the ECB haircuts considered by the model or the auto-collateralization limits will be automatically reflected in the Framework modelling. LCH SA is also specifying that in the case of a distinct ECB category and haircut step and/or different operational readiness to transfer securities in bulk from T2S to the 3G Pool between different issuers assigned to the same DCA, the allocated portion of the limit to each issuer will be defined based on the average daily settlement obligation per security over the last year for purposes of computing the liquidity impact.

LCH SA is also proposing to delete the table reflecting the limits by settlement platform and activity as of March 30, 2022, and the associated footnotes. This table and related footnotes are primarily being removed because LCH SA will instead apply a more dynamic approach to determining the maximum liquidity drain that could occur by following the steps referenced above. An example of liquidity reporting is provided in Appendix 6.5 for informational purposes only and specifying that the model may utilize updated figures (to be defined in accordance with the specifications outlined in Section 1.6.2.4). The reference to applying an 11% haircut to ECB securities is being removed, as

LCH SA will instead apply the current most conservative ECB haircut of the relevant category and step. LCH SA is also proposing to delete reference to the specific previous War Games exercises performed to demonstrate operational effectiveness for purposes of pledging securities to the 3G Pool in 2019 and 2021. This reference is now covered by the first element specified above regarding how LCH SA will determine operational effectiveness and readiness for issuers moving forward (*i.e.*, through its War Games exercises performed each year).

Collectively, these changes to the auto-collateralization feature described in the Framework do not directly impact the Framework methodology for calculating the LCR or the Operational Target. The respective formulas will remain the same, but instead when incorporating the liquidity need deriving from the auto-collateral functionality, the formulas will utilize dynamic input data (rather than static values defined in the LRMF), such as the most recent ECB haircuts and the actual auto-collateralization limits set up in production at the time of monitoring and according with the specific methodology described above. The purpose of the revisions to Section 1.6.2.4 is to enhance the clarity of the Framework by describing more explicitly the general steps considered by the CCP when modelling the potential liquidity need arising from the auto-collateralization functionality in the settlement platforms.

Section 4.1.2: Model Inputs and Variable Selection

As part of determining its overall liquidity needs on an ongoing basis, LCH SA models for its operational liquidity needs as part of the Framework. The operational liquidity requirement is valued through the Operational Target in the daily liquidity stress tests. The requirement represents the amount of liquidity required to satisfy the liquidity

needs borne from the ongoing operational management of LCH SA in a stressed environment. This requirement is therefore not related to a clearing member default. LCH SA specifies this liquidity requirement drivers it models in the Framework in Section 4.1.2. LCH SA is proposing to amend certain provisions of this Section by revising the statement related to the repayment of excess cash and excess ECB-eligible securities posted by members as a liquidity need to state the "partial" repayment of excess. As part of the Proposed Rule Change, LCH SA is adjusting how it models for the treatment of excess collateral and this change is being made to align for the revised treatment of excess collateral throughout the Framework (*see* Section 4.1.5 below). The clarification of liquid resources-eligible securities is being made to reflect that a liquidity need arises from the withdrawal of liquidity resources and thus the reduction in available liquidity. An amendment to note 16 is also being made to clarify that non-euro cash and CBGs are excluded as liquidity resources because LCH SA does not consider USD and GBP cash posted by members as liquid resources for conservative reasons, and for CBG, LCH SA does not have the ability to use such assets for liquidity purposes unless such member is in default. To align with the clarification made regarding liquidity needs that may arise from clearing member substitution of liquid resources to non-liquid resources (*see* the proposed changes to Section 4.1.5.(e) below), LCH SA is amending Section 4.1.2(e) to clarify that the substitution refers to liquid resources (not just cash or ECB-eligible collateral) to non-liquid resources.

Moreover, a new liquidity need in Section 4.1.2(j) is being added to specify that in the calculation of the Operational Target there will be a provision to model the switch from collateral posted under FTT, and therefore included in liquid resources, to collateral

posted under the pledge regime, and therefore considered as non-liquid resources if the member posting the collateral is not in default. This conforms with the change made to Section 1.6.2.3.

Section 4.1.4: Mathematical formula, derivation and algorithm, and numerical approximation

Finally, to conform with the changes made to Section 1.6.2.3, LCH SA will add as a liquidity requirement captured in the Framework (as Section 4.1.2(j)), the switch from collateral posted under FTT to the pledge regime. Because of the addition of the needs arising from the switch from FTT to pledge, LCH SA will add to Section 4.1.4 the needs arising from the switch as an input to the Operational Liquidity Requirements. Specifically, LCH SA's Operational Liquidity Requirements now comprise all items referenced in Section 4.1.2 (including Section 4.1.2(j)).

Section 4.1.5: Model Assumptions (Treatment of Excess Collateral)

LCH SA is also proposing to amend how it models for the treatment of excess collateral of non-defaulting clearing members in its Operational Target calculation of the Framework. Currently under LCH SA's cover 2 Framework, LCH SA considers that in a default, non-defaulting members will withdraw all their excess collateral following a stress event. In contrast, excess collateral is considered a liquidity resource for defaulting members.

LCH SA is proposing to modify the assumption that all excess collateral is withdrawn immediately following a stress event in its Framework. Specifically, LCH SA would like to revise the assumption that all excess collateral will be withdrawn following the declaration of default in the LCR or during the non-default market stress scenario of

the Operational Target standalone calculation. This proposed change would refine the Framework by more closely aligning it with current clearing member behaviors and with the appropriate liquidity horizon period (currently modeled at seven days), while at the same time maintaining a conservative assumption. To facilitate this change, LCH SA is proposing to model for a partial withdrawal of excess collateral based on an indicator calibrated with empirical clearing member data. The partial withdrawal will be based on the second worst observed relative variation experienced over seven days, capped at the biggest historical reduction in excess collateral over the liquidity horizon, utilizing up to ten years of historical data, initiating in 2018.

The rationale for considering the second highest observed historical relative excess decrease is that it represents a confidence level of 99.9% related to a stress event compared to the standard 99.7% used for margin computation in LCH SA. Moreover, as the value will be automatically integrated in the daily Operation Target as part of a dedicated monitoring, it allows ample time for LCH SA's Second Line Risk team to investigate any data issues or any data outliers without an immediate direct impact on production.

LCH SA is proposing to calibrate this indicator daily, thereby incorporating each new daily data point. In order to be consistent with the Framework, LCH SA is also proposing to align the withdrawal over a seven-day period (*i.e.*, the liquidity horizon), rather than the current three-day period. Finally, LCH SA is proposing to implement an enhancement of the daily back testing, specific to this change, to ensure any changes in the partial withdrawal scenario are flagged to senior management. Any new extreme (*i.e.*, second biggest seven days relative margin reduction or seven days biggest absolute cap

amount) will automatically be integrated in the Framework the following day and will be shared with the Head of Market Risk and the Chief Risk Officer. In addition, a deep analysis will be performed to assess the level of excess reduction modelled each intermediary day of the liquidity horizon considering the drivers of the new peak. Results of this exercise may lead to a review of the split of excess collateral reduction modelled in the intermediary days within the liquidity horizon and any change to the Framework would therefore require review and approval by the ERCo.

To reflect this methodological change in the Framework, LCH SA is proposing to amend Section 4.1.5(d) by clarifying the description of how the withdrawal of excess collateral is modelled. Specifically, LCH SA is proposing to state that a portion of excess collateral is withdrawn over the seven-day liquidity horizon period, with the target estimated excess collateral amount assessed based on historical data dating back to 2018. LCH SA is also proposing to specify that the calibration of this amount will be updated daily as new data becomes available and up to a ten-year lookback period. As part of this change, Section 4.1.5 will also be amended to add that the relative reduction in excess collateral will correspond to the second worst observed relative decrease of excess collateral over a seven-day period, with a cap of the highest absolute reduction amount observed over seven days. LCH SA will provide additional details in Section 4.1.5 in the form of a specific formula as well as the list of assumptions made to clarify how the reduction in excess collateral will be applied. Previous references to the assumptions of excess collateral withdrawal on day T, day T+1 and day T+2 will be removed and replaced with the following clarifications:

- The overall compounded excess reduction over the liquidity horizon will correspond to the second worst relative rate observed over seven days excess reduction, over the calibration period capped at the highest absolute reduction amount observed;
- The biggest reduction relative rate observed on a single day will be applied the first day;
- In each intermediary day, the compounded excess reduction is above the 99.7% percentile confidence interval within the historical window observed;
- LCH SA assumes that it will not observe any increase of excess from members over the liquidity horizon; and
- The assumptions will be monitored daily, such that if a new second worst relative rate is observed, it will automatically be reflected in the computation of the metric.

LCH SA is also proposing to amend note 18 to add that, in addition to DKK, NOK, SEC, AUD, CAD, CHF and JPY securities, collateral belonging to FCM/BD clients and Portuguese and Finnish securities deposited through a triparty arrangement are excluded from liquidity assets in excess collateral. LCH SA will also exclude non-euro cash and CBGs. This last change is being made for purposes of accuracy and does not represent a change in the methodology of the Framework or procedures of LCH SA.

Also, a new note 19 will be added to reference the member behavioral analysis documented in Section 6.2 "Appendix 2". Section 6.2 will be revised to clarify and provide additional evidence about the methodology detailed in Section 4.1.5. Specifically, in the bullet points summarizing the risk drivers, the phrase "Excess

withdrawn" will be replaced by the phrase "Partial excess withdrawal" for purposes of clarity and to conform with similar changes made to the Framework.

Moreover, LCH SA is proposing to state it will assume that a portion of the amount of excess collateral will be withdrawn over seven days and this will substitute the current wording that states that the full amount is assumed to be withdrawn over three days. Moreover, the excess reduction will be based on the second worst relative downward reduction of excess, capped to an absolute amount corresponding to the highest absolute reduction amount observed in the lookback period. To support the change, LCH SA is proposing to add an example of how the intermediary daily excess reductions are modelled by the proposed methodology and included in a table reflecting the margin reduction rate, the cumulative reduction and the absolute value of the capped amount over each day of the seven-day period. LCH SA will also clarify that the figures presented in the example table are for informational purposes only and that the current model will utilize the most recent figures in accordance with Section 4.1.5.

LCH SA is also proposing to make a small amendment to Section 6.3 "Appendix 3: Reminder of SA's sources of liquidity and related risk drivers" with respect to excess collateral. That is, LCH SA is proposing to create a new category " Excess Collateral" and to state that the source of liquidity considered is the excess posted by member and add the text "Partial withdrawal of excess." LCH SA is further removing the specific reference to excess cash collateral, as the proposed wording is more aligned to the methodology presented in Section 4.1.5(d). LCH SA is also proposing to amend Section 6.4 "6.4 Appendix 4: Liquidity risk drivers synthesis by reports". Specifically, the column labelled "Excess" under "BAU" will be amended to reflect that instead of 100

percent of excess collateral being withdrawn, LCH SA will utilize the second worst relative withdraw of excess collateral capped at the highest reduction amount observed, for each Operational Target, LCR Cover 2 for non-defaulting members and LCR Euronext Clearing. Changes to Sections 6.3 and 6.4 will be made to align with the changes made to Section 4.1.5.

To accurately account for the switch of liquid resources to non-liquid resources in the assumptions of the Framework, LCH SA is proposing to amend Section 4.1.5(e) to include details on the new proposed calculation and underlying assumptions. To align with changes performed in 4.1.2, LCH SA clarifies that the substitution refers to liquid resources (and not only cash or ECB-eligible collateral as reported in the header of the section 4.1.5 (e) in the previous version of the Framework) to non-liquid resources. The result of the calculation represents the target estimated switch over a liquidity horizon of seven days and is based on historical data calibrated daily. LCH SA is proposing to build the time series of data utilized in the calculation until it reaches a maximum lookback period of 10 years (beginning in 2022). This revision also corresponds to the extension of the offering of securities in DKK, NOK, SEK, CAD, AUD, JPY, and CHF as eligible collateral. LCH SA is proposing a conservative assumption to this calculation by assuming clearing members will not switch non-liquid collateral with liquid collateral over the liquidity horizon and by applying the largest absolute net substitution amount historically observed on a single day over the lookback period, on the first day of the liquidity horizon. For each subsequent day, the compounded net substitution amount will be set above the 99.7% percentile confidence interval within the historical window observed. LCH SA will choose the overall compounded switch value over the liquidity

horizon that corresponds to the second worst absolute observed seven-day substitution over the period (the "net substitution amount"). The net substitution amount is calculated for each date and collateral account and is based on a multi-step process that includes the calculation of two metrics: a negative substitution amount, or an amount that reflects a clearing member switching liquid resources with non-liquid resources, and a positive substitution amount, or an amount that reflects a clearing member switching from non-liquid to liquid resources. The net substitution amount represents the difference between the negative substitution amount and the positive substitution amount. LCH SA chooses the aggregate cumulative sum over each day of the liquidity horizon. Consequently, all the references to the former methodology and the related assumptions are proposed to be removed as the substitution is not performed anymore on the maximum historical substitution observed over the last 7 days. To complement this proposed change, LCH SA is adding in Appendix 6.2 ("Members Behaviour Analysis") an illustrative example of the cumulative switch amounts from liquid resources to non-liquid resources over the seven-day liquidity horizon and reference in a new note 20. LCH SA will also clarify that the figures presented in the example table are for informational purposes only and that the current model will utilize the most recent figures in accordance with Section 4.1.5. The updated text replaces the previous paragraph in the previous version of the Framework that described the substitution methodology and gave an overall description of LCH SA's collateral composition and in particular the split between the ECB eligible EUR non cash collateral and non EUR collateral, which is now outdated as the collateral composition is a function of members' activity and the proposed new methodology adequately captures it more dynamically. In addition, the reference to reverse stress test results and

concentration limits applied on non-cash collateral is being removed as this reference is no longer relevant for the description of the new methodology, as it calibrates substitution amount on the basis of actual data observed over the lookback period. For the purpose of providing accuracy, the first bullet point in Appendix 6.2, where the risks driven are summarized as "Substitution cash to non cash (Banks keeping their cash)" will be replaced by "Substitution from Liquid Resources to non-Liquid Resources".

For the avoidance of doubt, LCH SA is also clarifying in Section 4.1.5(e) that the assumptions underlying the calculation of the switch amount will be monitored daily and compared against the parameters set up in production according to the described methodology with new extrema automatically reflected in metric calculations (amounts presented in Appendix 2 represent minimum values and may therefore fluctuate daily). Moreover, LCH SA is specifying that the net substitution amount is determined using allocated collateral. To enhance the clarity of the Framework, note 21 will be added to specify which collateral type is excluded from the computation of the substitution quantity, either because it is already considered in different provisions of the Framework, or because the substitution from Liquid Resources to non-Liquid Resources is not possible for the specific collateral type.

LCH SA is also proposing to amend Section 6.4 "6.4 Appendix 4: Liquidity risk drivers synthesis by reports". Specifically, the column labelled "Substitution" under "BAU" will be amended to align with Section 4.1.5(e) by reflecting that the Operational Target, the LCR Cover 2 and the LCR Euronext Clearing will all consider partial substitution to non-Liquid resources equal to the second worst substitution historically observed.

In addition, in Section 4.1.5(e), LCH SA is proposing to clarify that ECB eligible securities can be pledged to the central bank within the same day and the readiness must be tested and validated annually as part of the Liquidity Plan. That is, LCH SA will demonstrate its ability to perform the necessary activities for purposes of meeting its regulatory obligations related to ensuring access to liquidity. Furthermore, the new language replaces the current reference to War Games Q3 2022 results, given these results are outdated.

Finally, the previously applied methodology for tracking asset switches from cash or ECB eligible securities to non-euro securities, equity lodging, and the use of central bank guarantees are no longer relevant and have been removed. These methodologies, which relied on observed maximum daily switches over a seven-day period, conservative equity lodging and the specific assumption about CBG usage are outdated and not relevant anymore. Instead, a more comprehensive and holistic methodology has been introduced as described above to ensure a more accurate and dynamic approach to liquidity management.

Section 4.1.5(g) is being modified to specify that in alignment with Sections 4.1.5(d) and 4.1.5(e) the assumptions used to estimate the margin reduction in the Operational Target are monitored daily and in case of new extreme, this will be automatically reflected in the computation of the metric. Moreover, note 24 is being modified to state that the lookback used to calibrate the assumption of margin reduction does not end in 2022 because it is instead updated daily. The same amendment will be reflected in Appendix 6.2 (“Members Behaviour Analysis”), with the addition of the sentence specifying that the numbers reported in the example (which reflect the split on

each day of the margin reduction) are provided for informational purposes only and that the model may utilize updated figures, which will be defined in accordance with the specifications outlined in Section 4.1.5(g). A new Section 4.1.5(j) is being added to provide details on how LCH SA models for the scenario where clearing members switch the regime of how collateral is posted to the clearing agency (*i.e.*, FTT to pledge). The Framework will model this behavior by comparing the second biggest historical pledged amount observed over a 10-year lookback period with the actual observed pledge collateral amount starting in 2022. The difference between these two components will correspond to the amount LCH SA will include in its daily liquidity requirements and is above the 99.7% percentile. Like the calculation for the switch from liquid to non-liquid resources, LCH SA will implement additional daily monitoring and recalibrate the calculation of this metric as necessary if a new maximum is observed.

In Appendix 6.2 ("Members Behaviour Analysis"), LCH SA will add the bullet "Substitution to pledge regime" among the list of the risk drivers and will conform with Section 4.1.5(j), such that the provision will be equivalent to the difference between the second biggest historical amount of pledge observed and the actual observed pledge collateral amount.

LCH SA will also amend the risk mitigation measure referenced in Section 6.3: Appendix 3 as it pertains to pledged securities as collateral. Specifically, LCH SA will clarify that the risk related to clearing members moving away from FTT in favor of the pledge regime is accounted for in the modelling of the LCR and the Standalone Operational Target. This element is not a change in the current practice with respect to

the LCR computation but an alignment with the introduction of the modelling of the switch from FTT to the Pledge regime in 4.1.5(j).

LCH SA is also proposing to amend Section 6.4 "6.4 Appendix 4: Liquidity risk drivers synthesis by reports". Specifically, the column labelled "Substitution" under "BAU" will be amended to reflect that for the Operational Target, a provision to model the switch to the pledge regime according to Section 4.1.5(j) will be included, while for the LCR Cover 2 and LCR Euronext Clearing calculations, the pledge collateral will be set to the maximum limit allowed as described in Section 4.2.5.2.4 of the Framework. Language indicating the substitution would be the historical max including an increase of CBG payments would be deleted from each of these rows to reflect the different changes performed in section 4.1.5.(e) and (j) and the methodology described in Section 4.2.5.2.4 of the Framework. The reference to Central Bank Guarantee is outdated and not relevant anymore and it is replaced by the updated methodology described herein. For clarify, LCH SA notes that contrary to the LCR, the Standalone Operational Target assumptions do not imply clearing member defaults, thus justifying the difference of modelling the pledge regime.

Section 4.2.5.2.1: Operational Target (considered in LCR Cover 2)

The LCR assumes the default of the biggest 2 groups in term of liquidity while the Standalone Operational Target assumes a market stress event not leading to a default. Therefore, when integrating the Standalone Operational Target into the computation of the LCR, it is adjusted to be more conservative and align with different assumptions taken in the LCR. LCH SA is proposing to make certain clarifying changes with respect to how the Standalone Operational Target is calculated for its LCR under a cover 2

approach. LCH SA will substitute the text "Repayment of Excess cash posted by members" with "Repayment of Excess posted by members" to align with what is described in section 4.1.5(d). Moreover, LCH SA is clarifying that it will utilize a more conservative assumption regarding how it models for the switch from FTT to pledge, whereby the pledged collateral will be set to the maximum limit allowed as described in Section 4.2.5.2.4 of the Framework.

LCH SA will make a conforming change in Section 4.3.5.4 related to the Standalone Operational Target in the LCR calculation for a Euronext Clearing default to align with this change of Section 4.2.5.2.1, as the described change applies to both LCR cover 2 and LCR Euronext Clearing.

In addition, the sentence: "The margin outflows calculated in the operational target and related to the cover 2 is removed for LCR since the CCP will fully use the collateral of the defaulters" will be reworded to "The margin outflows calculated in the operational target and related to the cover 2 is removed from LCR liabilities since the CCP will fully use the collateral of the defaulters". This change is being made to add more clarity regarding how LCH SA calculates LCR liabilities.

In Section 4.3.2: "Model inputs and Variable selection" (related to LCR Euronext Clearing), LCH SA will correct a typo and revise the previous name of the interoperable CCP, "CC&G" to the current name, "Euronext Clearing".

Section 5.3.1: Independent Stress of Various Risk Factors

As part of its ongoing monitoring of the Framework, LCH SA performs independent reverse stress tests for certain risk factors that could result in a liquidity shortfall. One of these independent reverse stress tests involves a Eurozone downgrade of

peripheral and core countries that triggers an increase in ECB haircuts, whereby the value of liquidity resources decreases by an amount resulting in a liquidity deficit. LCH SA is proposing to review the assumptions underpinning the stress scenario by noting that the simulated downgrade will be based on the maximum simultaneous downgrade notches that occurred over seven days for each of the four rating agencies acknowledged by the ECB, aggregated per type of debt (*i.e.*, Core/Peripheral). After computing the downgraded rating, LCH SA will use the rules defined by the central bank to assign each issuer a haircut category and a haircut step in order to apply the parameter aligned with the updated rating with a cap to step 3 (which is considered the most conservative haircut category applied by the ECB before collateral becomes ineligible for pledge). LCH SA notes that because of the historical measures taken by ECB during stressed periods (*e.g.*, Eurozone crisis) and the high quality of non-cash collateral, the ineligibility of issuers to pledge to the ECB is not considered a plausible scenario. LCH SA is also proposing additional conforming edits to align with the clarifications made in Section 5.3.1 (*e.g.*, Section 5.3.2.3 "Macroeconomic Scenario" will be amended to align the assumptions made in Section 5.3.1) with the removal of the former assumptions that simulated a fixed effect on core and peripheral countries independently of a historical downgrade. LCH SA is making these changes to sovereign downgrade assumptions to address a Model Validation recommendation.

In addition, LCH SA will clarify in Section 5.3.2.3 that the table presented is an example of the aggregation of exposure for a member group during the combined reverse stress test that includes multiple defaults and is presented for illustrative purposes only.

Finally, LCH SA will also revise Appendix 6.2: "Members behaviour analysis", by removing the two charts and the global wording related to discussion around increase of margins and the specific case of Brexit. This reference is being removed as it is outdated and these elements are no longer part of the Framework methodology.

Appendix 6.7 – Stress scenarios list

LCH SA will clarify that the scenario list disclosed is for informational purposes only and represents the list of scenarios at the time of drafting the current version of the Framework. The actual computation of liquidity metrics is dependent on the actual scenarios used to calibrate the default fund for LCH SA's different services and thus may differ. Moreover, only the scenario labels will be left in the Framework, as this is more applicable for scenario identification than scenario numbers.

Appendix 7 – Operating Model and main data source used to run liquidity metrics

To address an independent Model Validation recommendation, a new section will be integrated to disclose a high-level functional workflow regarding the computation of liquidity metrics. The chart will be disclosed for informational purposes only, such that any revision will be made if LCH SA amends the methodology or the Framework.

New Procedure: LCR Metric Compliant with SEC Rules and Established Practices

To complement the changes to the Framework, LCH SA is also proposing to create a new procedure for the purposes of describing the Liquidity Resources including in its LCR calculation for the purposes of complying with the SEC's cover 1 liquidity requirements. The procedure will detail the specific LCR methodology, the escalation process for any potential breaches in the specific cover 1 metric, the frequency of LCH

SA's review of the LCR methodology and the controls in place regarding the calculation and ongoing review of the LCR metric compliant with the SEC's cover 1 liquidity requirements and established practices.

2. Statutory Basis

LCH SA believes the Proposed Rule Change is consistent with the requirements of Section 17A of the Act[5] and regulations thereunder applicable to it. Section 17A(b)(3)(F) of the Act requires, *inter alia*, that the rules of a clearing agency should be designed to "promote the prompt and accurate clearance and settlement of securities transactions and, . . . to assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible[.]"[6]

The Framework is being amended primarily to enhance details about how LCH SA models for the liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature in its Framework and amend how LCH SA accounts for non-defaulting members' excess collateral in the calculation of the Standalone Operational Target as well as the LCR in its Framework. The proposed changes to the Framework regarding the auto-collateralization feature will allow LCH SA to utilize dynamic input data, including the most recent ECB haircuts and the actual auto-collateralization limits set up in production at the time of monitoring. In addition, the Framework will be amended to provide a more targeted auto-collateralization limit, such that the allocated portion of the limit for each issuer, in the case where there is a distinct ECB category and haircut step and/or different operational

5 15 U.S.C. 78q-1.

6 15 U.S.C. 78q-1(b)(3)(F).

readiness to transfer securities in bulk from T2S to the 3G Pool between different issuers assigned to the same DCA, will be defined based on the average daily settlement obligation per security over the last year for purposes of computing the liquidity impact. The proposed changes to the treatment of excess collateral in the Framework will allow LCH SA to modify the previous assumption that 100 percent of excess collateral is withdrawn immediately following a stress event in its Framework, to more closely align it with current empirical clearing member behaviors and with the appropriate liquidity horizon period. Collectively, these change would strengthen LCH SA's ability to comprehensively manage its liquidity risks by ensuring it maintains sufficient liquid resources to facilitate the prompt and accurate clearance and settlement of securities transactions and assure the safeguarding of securities and funds in its control, consistent with Section 17A(b)(3)(F) of the Act.[7]

Regulation 17Ad-22(e)(7)(i)[8] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum, . . . [m]aintaining sufficient liquid resources at the minimum in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of foreseeable stress scenarios that includes, but is not limited to, the default

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7 Id.

8 17 CFR 240.17Ad-22(e)(7)(i).

of the participant family that would generate the largest aggregate payment obligation for the covered clearing agency in extreme but plausible market conditions.[9]

LCH SA is proposing to provide additional specificity in its Framework to more accurately reflect how it models liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature. Specifically, LCH SA is proposing to detail the operational steps by which LCH SA would utilize the auto-collateralization feature, as this information is not currently in the Framework. LCH SA is also proposing to amend the Framework to more accurately reflect real-time information, including the current ECB haircut schedule for sovereign debt securities and the limits determined through real-time monitoring for each debt type. In addition to the proposed changes related to the auto-collateralization feature, the proposed changes to the treatment of excess collateral would modify how LCH SA quantifies the liquidity drain related to Clearing Member withdrawal behaviors in a stress event. Under the Proposed Rule Change, the withdrawal of excess collateral would be modeled based on Clearing Member historical behavior and aligned with the seven-day liquidity horizon. That is, LCH SA will model for the partial withdrawal of excess collateral that is based on the second worst observed relative variation experienced over seven days, capped at the biggest historical reduction in excess collateral over the liquidity horizon. This process would utilize up to ten years of historical data and the result will be automatically integrated in the Operation Target on a daily basis and form the basis of a dedicated monitoring process. The Proposed Rule Change will also clarify that LCH SA will monitor how excess collateral is modelled in the intermediary days within the liquidity

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9 Id.

horizon and that any change to the assumptions in the Framework will require approval by the ERCo.

LCH SA is also proposing to create a new procedure to describe its process for calculating the Liquidity Resources included in its LCR calculation to comply with the SEC's cover 1 liquidity requirements, detail the specific LCR cover 1 methodology, how it will escalate breaches in the daily review of the specific cover 1 metric, the frequency of LCH SA's review of the LCR methodology more broadly and the controls in place for how LCH SA will calculate and monitor the LCR metric to ensure ongoing compliance with the SEC's cover 1 liquidity requirements and established practices.

Based on the foregoing, LCH SA believes the Proposed Rule Change will allow it to more effectively measure, monitor, and manage its liquidity risk, including by maintaining sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations consistent with Regulation 17Ad-22(e)(7)(i)[10].

Regulation 17Ad-22(e)(7)(ii)[11] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum, . . . [h]olding qualifying liquid resources sufficient to meet

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10 Id.

11 17 CFR 240.17Ad-22(e)(7)(ii).

the minimum liquidity resource requirement under paragraph (e)(7)(i)[12] of [the SEC's liquidity rules] in each relevant currency for which the covered clearing agency has payment obligations owed to clearing members.[13] In addition, regulation 17Ad-22(e)(7)(vi)(A)[14] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum, . . . [d]etermining the amount and regularly testing the sufficiency of the liquid resources held for purposes of meeting the minimum liquid resource requirement under [the SEC's liquidity rules] by . . . [c]onducting stress testing of its liquidity resources at least once each day using standard and predetermined parameters and assumptions.[15]

To address a regulatory examination observation and for purposes of simplifying how this information is presented in the Framework , LCH SA is making clarifying changes to how it calculates liquidity resources for purposes of meeting the minimum liquid resource requirements under Exchange Act rule 17Ad-22(e)(7)[16]. In addition to adding detail on the composition of liquid resources and to address an independent Model Validation observation and a regulatory examination finding, LCH SA is proposing to amend how it models for the substitution of liquid resources to non-liquid resources in its

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12 17 CFR 240.17Ad-22(e)(7)(i).

13 17 CFR 240.17Ad-22(e)(7)(ii).

14 17 CFR 240.17Ad-22(e)(7)(vi)(A).

15 Id.

16 17 CFR 240.17Ad-22(e)(7).

Framework. In doing so, LCH SA will quantify this substitution via a proxy by calibrating over the seven-day liquidity horizon using historical observations. To ensure this value remains accurate in the calculation of liquid resources, LCH SA will perform daily monitoring and calibrate the value should results reflect different assumptions and document this process in a procedure. In the case of any liquidity shortfalls, LCH SA will escalate to senior management to take any necessary actions.

In addition, LCH SA is also proposing to amend how it models excess collateral withdrawal by leveraging the historical behavior of its membership and using a lookback period that includes times of stress. LCH SA s also proposing to include in the calculation of the Operation Target standalone a provision to model the potential switch of collateral from the full title transfer regime to the pledge regime calibrated on the historical behavior of its membership. This change will to be applied to the LCR, whereby this currently assumes more conservatively that all members that can pledge, will do so up to the maximum capacity possible.

Finally, LCH SA proposes to update its Framework for independent reverse stress tests by revising the assumptions underlying its simulated Eurozone downgrade scenario, including the use of maximum downgrade notches from recognized rating agencies and recalibration of haircut categories per central bank rules. LCH SA is making these changes to the sovereign downgrade assumptions to address a Model Validation recommendation.

LCH SA is also clarifying that it will only include non-cash resources in its liquidity resources under a cover 1 scenario after performing a comprehensive analysis and presenting to the Board not less than annually to ensure such prearranged funding

arrangements are deemed highly reliable even in extreme but plausible market conditions.[17] This clarification will align with LCH SA's Liquidity Plan and Liquidity Risk Management Policy and LCH SA therefore believes that the Proposed Rule Change is consistent with Regulation 17Ad-22(e)(7)(ii)[18] for purposes of holding sufficient liquid resources and Regulation 17Ad-22(e)(7)(vi)(A)[19] for purposes of adequately modelling liquidity stress testing parameters and assumptions.

Finally, Regulation 17Ad-22(e)(7)(vi)(B)[20] requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum determining the amount and regularly testing the sufficiency of the liquid resources held for purposes of meeting the minimum liquid resource requirement under Regulation 17Ad-22(e)(7)(i), by at a minimum, . . . conducting a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources, and considering modifications to ensure they are appropriate for determining the clearing agency's identified liquidity needs and resources in light of current and evolving market conditions.[21]

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17 Id.

18 17 CFR 240.17Ad-22(e)(7)(ii).

19 17 CFR 240.17Ad-22(e)(7)(vi)(B).

20 Id.

21 Id.

As part of the process to assess the sufficiency of liquid resources held to meet the minimum liquid resource requirement set forth in Regulation 17Ad-22(e)(7)(i)[22], LCH SA identified the need to enhance details about how it models for the liquidity needs arising from the daily settlement process in its RepoClear service related to the auto-collateralization feature in its Framework and amend how it accounts for non-defaulting members' excess collateral in the calculation of the operational target in its Framework. With respect to the auto-collateralization feature described in the Framework, LCH SA identified a need to:

(1) add detail with respect to the auto-collateralization feature, including the operational steps by which LCH SA would utilize the feature;

(2) clarify that the maximum potential liquidity drain modelled is based on the operational effectiveness and readiness of the transfer of securities from T2S to the 3G Pool for each issuer, as demonstrated on an annual basis through LCH SA's War Games exercises,

(3) specify how the actual limits for each debt type are determined and validated by internal stakeholders;

(4) clarify that the most conservative ECB haircut of the relevant debt category and step currently in force will apply when determining the maximum liquidity drain; and

(5) make other updates and conforming changes to align with proposed revisions in (1) through (4) above.

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22 17 CFR 240.17ad-22(e)(7)(i).

LCH SA also identified a need to modify how LCH SA accounts for non-defaulting members' excess collateral in the calculation of the Standalone Operational Target as well as LCR in its Framework. Specifically, LCH SA identified the need to modify the Framework to quantify the withdrawal of excess collateral over a seven-day liquidity horizon based on the second worst observed relative variation experienced over seven days, capped at the biggest historical reduction in excess collateral, utilizing up to ten years of historical data, and implement daily back testing to ensure any changes in the partial withdrawal scenario are flagged to senior management, such that any new extreme would automatically be integrated in the Framework the following day. LCH SA is also proposing additional updates and confirming changes to the Framework for consistency. LCH SA believes the Proposed Rule Change is therefore appropriate for determining its liquidity needs and resources in light of current and evolving market conditions, consistent with Regulation 17Ad-22(e)(7)(vi)(B)[23].

B. Clearing Agency's Statement on Burden on Competition

Section 17A(b)(3)(I) of the Act requires that the rules of a clearing agency not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[24] LCH SA does not believe the Proposed Rule Change would have any impact, or impose any burden, on competition. The Proposed Rule Change does not address any competitive issue or have any impact on the competition among central counterparties. LCH SA operates an open access model, and the Proposed Rule Change will have no effect on this model.

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23 17 CFR 240.17ad-22(e)(7)(vi)(B).

24 15 U.S.C. 78q-1(b)(3)(I).

C. Clearing Agency's Statement on Comments on the Proposed Rule Change Received from Members, Participants or Others

Written comments relating to the Proposed Rule Change have not been solicited or received. LCH SA will notify the Commission of any written comments received by LCH SA.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) by order approve or disapprove such proposed rule change, or

(B) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change, security-based swap submission, or advance notice is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-LCH SA-2025-003 on the subject line.

Paper Comments:

- Send paper comments in triplicate to Vanessa Countryman, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549.

All submissions should refer to File Number SR-LCH SA-2025-003. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (http://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 am and 3:00 pm. Copies of the filing also will be available for inspection and copying at the principal office of LCH SA and on LCH SA's website at: https://www.lch.com/resources/rulebooks/proposed-rule-changes. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-LCH SA-2025-003 and should be submitted on or before [Commission to insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[25]

Secretary

[25] 17 CFR 200.30-3(a)(12).

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EXHIBIT 5.1 – Liquidity Risk Modelling Framework V.6.3

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EXHIBIT 5.1 – Liquidity Risk Modelling Framework V.6.3

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EXHIBIT 5.2 – CALRM LCR metric compliant with US SEC rules and established practices

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EXHIBIT 3.1 – LCH_SA_Liquidity_SEC_output_2025031

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EXHIBIT 3.2 – LCH LRMF 6.3 RFI – 3.13.2025 – final (LCH SA Response)

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EXHIBIT 3.2 – LCH LRMF 6.3 RFI – 3.13.2025 – final (LCH SA Response)

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EXHIBIT 3.3 – QA LRMF 6.3_v2

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EXHIBIT 3.3 – QA LRMF 6.3_v2

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EXHIBIT 3.4 – LCH LRMF 6.3 RFI (LCH SA Response)

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EXHIBIT 3.5 – ERCo DA M24.x 2024-1128 Approved

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EXHIBIT 3.5 – ERCo DA M24.x 2024-1128 Approved

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EXHIBIT 3.6 – Example_substitution_QLR_NQLR

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EXHIBIT 3.7 – Statistics_cash_non_cash_2024

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