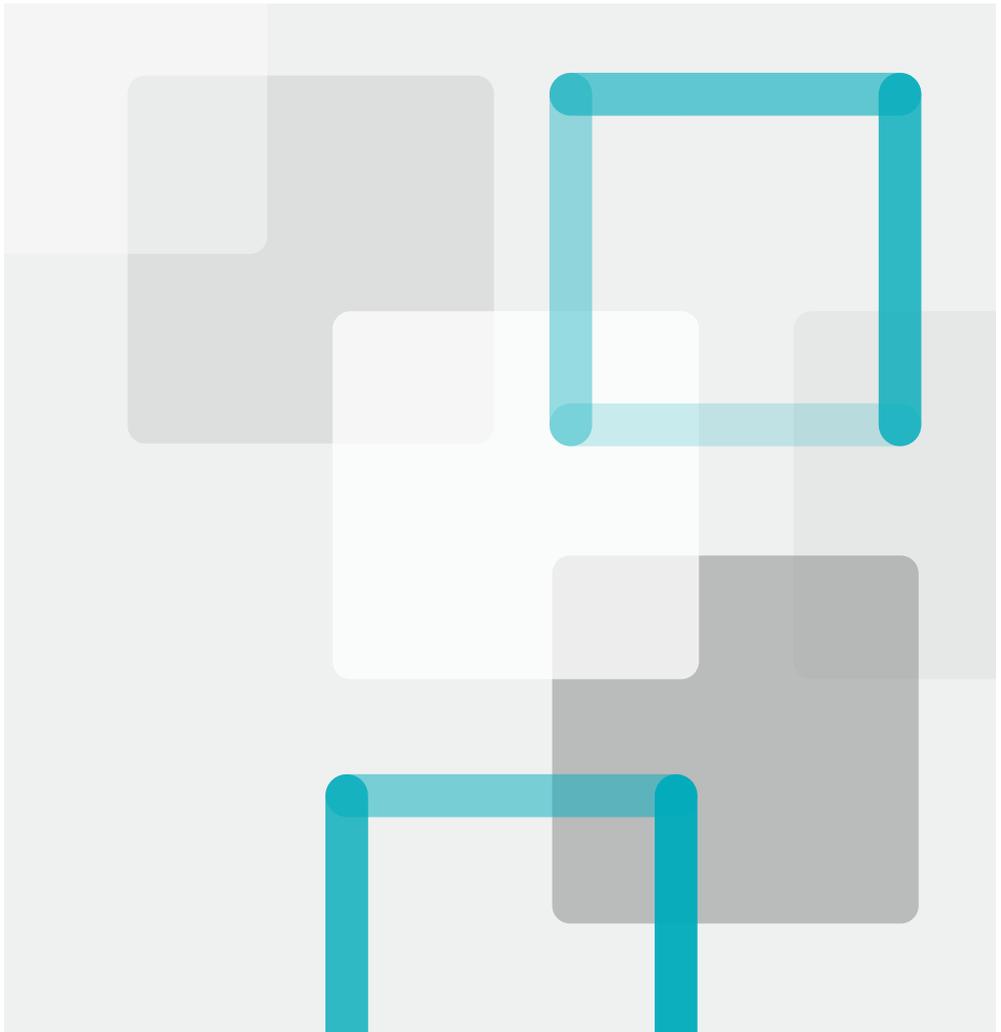
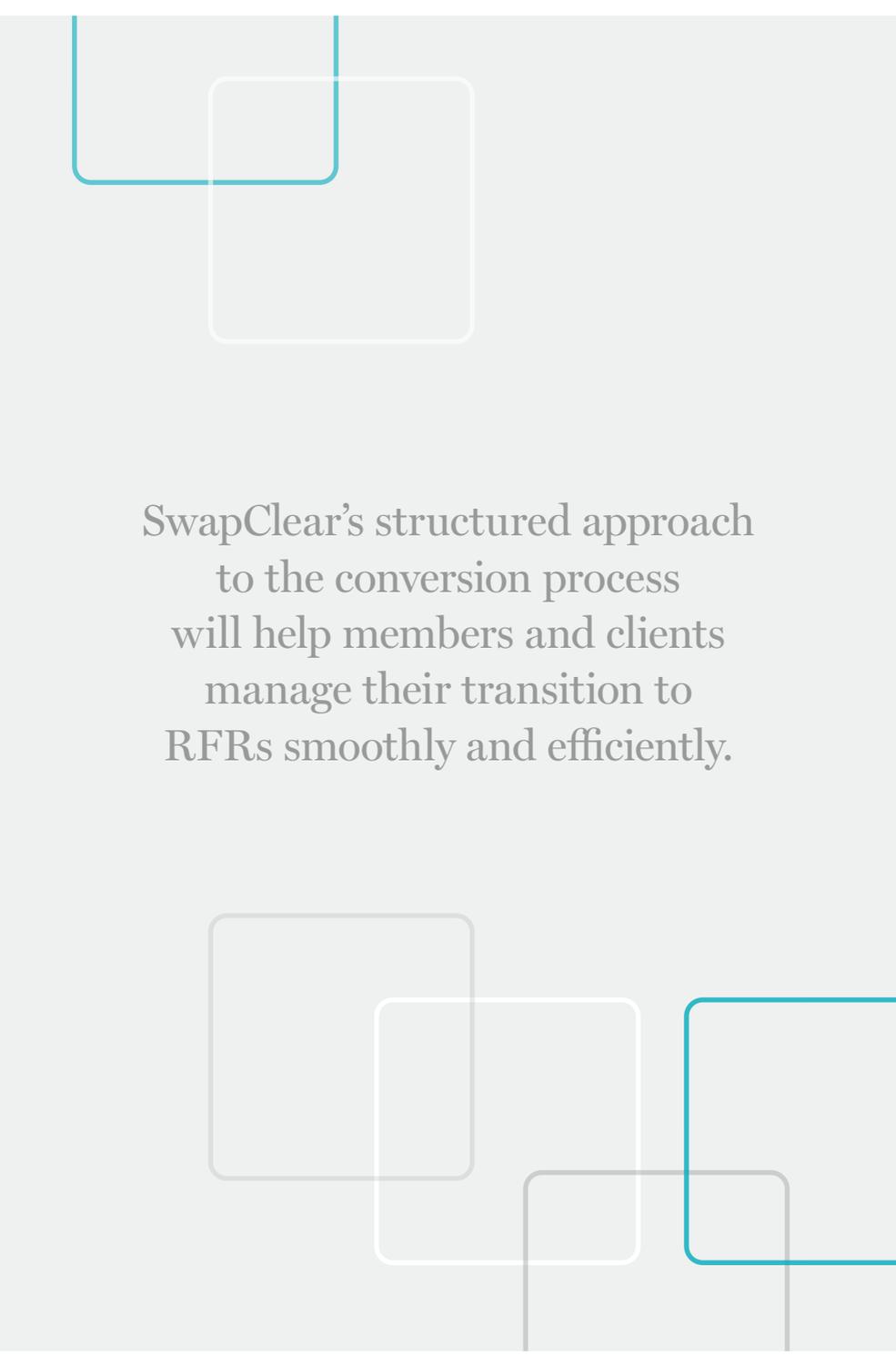


Managing the Transition to RFRs

SwapClear's Approach to the Conversion Process

LCH The Markets'
Partner





SwapClear's structured approach
to the conversion process
will help members and clients
manage their transition to
RFRs smoothly and efficiently.

Enabling an Efficient LIBOR Transition

LCH Group ("LCH") and its SwapClear business support ongoing industry-wide benchmark reform initiatives, including the proactive transition away from IBORs and into RFRs. In line with [regulatory guidance](#), LCH strongly recommends that participants consider proactively transitioning away from fallen-back benchmarks. The LCH conversion process is designed as a last resort for those participants that are otherwise unable to transition away from fallen-back rates.

We work closely with industry bodies and consult with our market partners to ensure our approach promotes market integrity, robustness and transparency. We conducted a consultation with members and clients at the beginning of 2021 on proposals that would enable the transition from outstanding cleared LIBOR contracts to be completed.

On 5 March 2021, the announcements by the FCA, IBA and ISDA served as a trigger for an index cessation event that applies to all LCH-cleared LIBOR swaps. The Index Cessation Effective Date has been set as:

- 1 January 2022 for all CHF, EUR, GBP and JPY LIBORs
- 1 July 2023 for all relevant USD LIBORs¹

To ensure our members and clients are prepared for these dates and are equipped to manage their transition to RFRs at SwapClear smoothly and efficiently, we are following a structured approach to the conversion process, which we outline in this brochure.

¹1W and 2M USD LIBOR tenors will be published for the last time on 31 December 2021. No SwapClear contracts roll against LIBORs of these tenors.

Robust CCP Risk Management

Maintaining outstanding LIBOR swaps past the relevant Index Cessation Effective Date could prove problematic in the event of a default, as trades would need to be hedged in a market whose liquidity is severely constrained. Risk management is at the heart of what CCPs do, and our ability to neutralise and resolve our exposures is paramount.

In line with consultation feedback, LCH is implementing a proactive conversion process to ensure that legacy LIBOR trades are converted into corresponding trades with market-standard RFR legs.

This will ensure:

- 01. All cleared contracts remain liquid
- 02. Risk profiles of legacy swaps are minimally impacted

Building Liquidity in RFR-Linked Swaps

CLEARED RFR VOLUMES

LCH continues to support members and clients to transition to alternative RFRs with clearing eligibility for swap products that help to drive their adoption. At SwapClear, we have seen a continuous upward trend in volumes for swaps linked to €STR, SOFR, SONIA and other RFRs, both in terms of trade count and notional. Total registered notional of USD 31 trn from March 2020 to 2021.

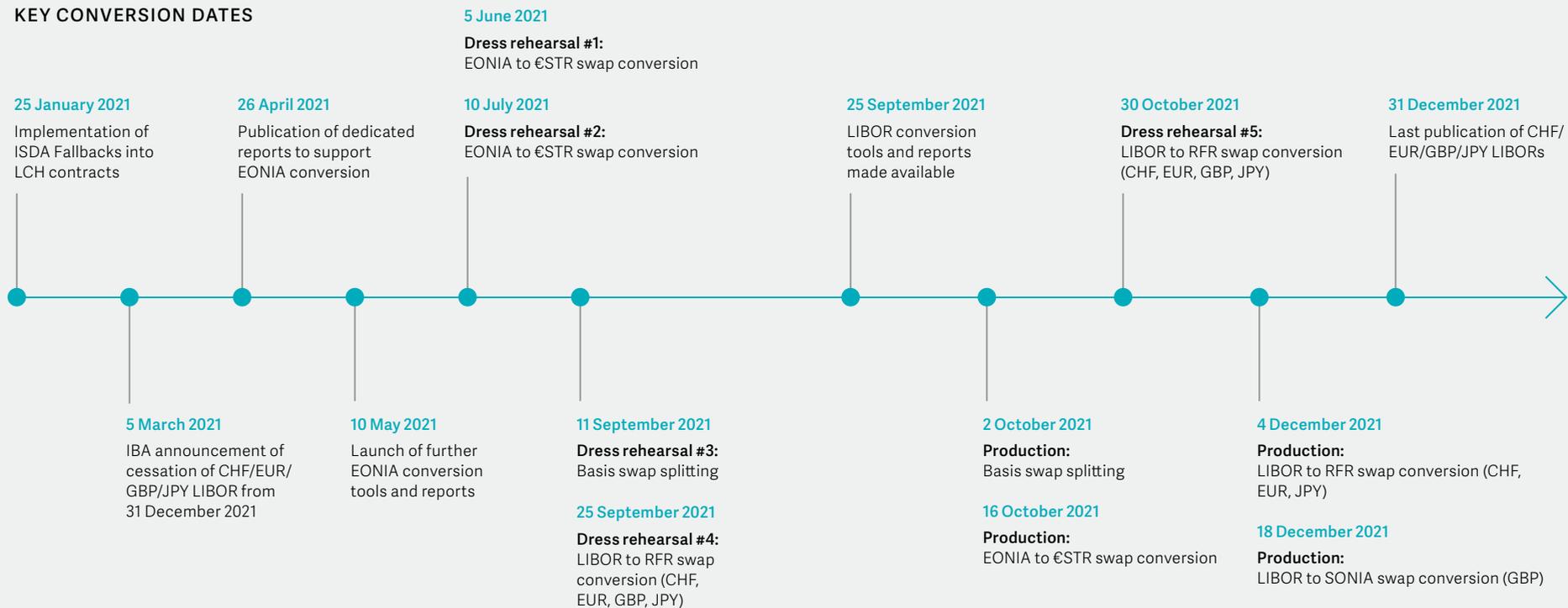
REGISTERED RFR TRADE COUNT



Conversion to RFRs: SwapClear's Structured Approach

LCH's structured approach to the conversion process helps ensure members and clients are prepared for the transition to RFRs at SwapClear.

KEY CONVERSION DATES



How the Conversion Process Works

As the markets' partner, LCH invited SwapClear participants to take part in its LIBOR Cessation Consultation. The majority of those consulted agreed that LCH should follow through with its standardised cash compensation conversion process.

All outstanding cleared LIBOR trades in EUR, CHF, GBP and JPY will therefore be converted to contracts with market-standard OIS legs at the end of this year. Following participants' feedback, we will incorporate the standard spread adjustment on the RFR leg.

- 01.** LIBOR is replaced by the relevant compounded RFR, plus a non-compounded spread adjustment.
- 02.** Observation and payment dates in that leg will follow the market standard for the relevant RFR contract. We are keeping as many of the terms of the original LIBOR leg the same as possible to ensure minimal impact.
- 03.** Non-LIBOR leg (the fixed leg) of the contract is left unchanged.
- 04.** Any difference in swap valuation pre-conversion and post-conversion will be captured via cash compensation. To ensure as much consistency and continuity as possible with the pre- and post-conversion risk profiles, we will be leaving as many of the terms of the contract as possible unchanged. Note that the interest accrual period dates on the floating leg and payment dates on the fixed leg will remain the same. LCH will be putting a cash compensation in place to neutralise any valuation differences between the pre-conversion LIBOR trade and its post-conversion RFR replacement, and will be calculated as a change in present value between the two contracts.
- 05.** **Spread Adjustment:** LCH will apply the spread adjustment produced by Bloomberg. LCH will add this spread adjustment to the floating leg on a non-compounded basis. We plan to respect the periodicity of the original LIBOR index (e.g. 1M, 3M, 6M) and use the spread adjustment corresponding to it.
- 06.** Where possible, LCH plans to preserve LIBOR fixings before the Index Cessation Effective Date through a LIBOR-RFR basis swap. All in-scope LIBOR trades will be converted to RFR equivalents, with an overlay as the operational mechanism to preserve any LIBOR fixings until the Index Cessation Effective Date.

We work closely with industry bodies and consult with our market partners to ensure our approach promotes market integrity, robustness and transparency.

ISDA FALLBACKS AND LCH CONVERSION – WHAT’S THE DIFFERENCE?

LCH is fully supportive of ISDA’s Fallbacks and the relationship they establish between the outgoing LIBORs and their corresponding RFRs. Indeed, LCH’s conversion processes rely on this relationship. However, allowing these Fallbacks to become operational would generate a mismatch between the economic driver of the contract (the RFR) and its legal representation (still LIBOR). In order to maintain alignment, LCH’s process represents a legal conversion.

There is also a small difference in economics to account for. ISDA’s Fallback methodology employs what can be described as an observation period shift of two business days to the RFR accrual so as to preserve the same payment date as on the LIBOR contract. In line with the consultation feedback, LCH plans to convert into a market standard RFR leg: this preserves the original interest calculation period but may introduce a payment lag according to the OIS conventions of the currency in question. LCH plans to account for this differential in its compensation calculation.

LIBOR FALLBACK AND CONVERSION FEES

A Fallback fee will apply to cleared contracts for which an index cessation event has occurred and which remain outstanding. This fee is meant to encourage early transition before the LCH conversion processes are run, thereby mitigating LCH’s concerns in relation to ongoing risk and default management.

A conversion fee will apply to cleared contracts converted as part of our conversion processes. The conversion process is designed as a last resort for participants who have not already performed an active transition.

Fees will apply to both SwapClear Clearing Member House and Client accounts. Please reach out to LCHGlobal.SRM@lch.com if you have any questions or if you require further information.

Special Case Trades

LCH is working with the industry to ensure that all trades have been accounted for.

- 01. Basis Swaps:** To convert LIBOR basis swaps in a secure manner and to mitigate any technical risks, LCH plans to split each basis swap into two interest rate swaps prior to the date of the main conversion process. The split will convert each Basis Swap contract that would otherwise result in an RFR/RFR contract into a pair of fixed/floating contracts, each against its original benchmark.
- 02. Swaps Incorporating Compounding:** For swaps that involve compounding of the floating rate, whether that results in regular periodic payments or in a single terminal payment (such as in a zero coupon swap). Please contact your SwapClear representative for further details.

Enhanced Reporting and Analysis Capabilities

LCH SMART

Ahead of the cessation of LIBOR in December 2021, LCH has enhanced the [LCH Portal](#) and LCH SMART margin estimation tool with new functionality to provide customers with visibility into the potential impact of the conversion process on their portfolio.

The LCH SMART margin optimisation service allows users to optimise their pre-trade and post-trade workflows and enables them to model the impact of the transition on their portfolios using LCH SMART analytics with indicative results. LCH SMART will also enable clients to rebalance their portfolio once the transition has taken place.

The LCH SMART margin estimation desktop tool will be further enhanced to enable a view of NPV of the converted swaps.

LCH SMART ACCESS

For access to LCH SMART, log in to the [LCH Portal](#), or contact the dedicated support team at SMARTTechSupport@lch.com to request access.

REPORTING

Per the €STR and SOFR discounting transition last year, a dedicated report (REP00315) has been utilised to provide the indicative compensation amount based on today's portfolio, with a granular view of the compensation per trade. An additional report (REP00318) will capture Fallback and Conversion fees. LCH will be providing the reference report (REP00319) to outline the details of the spreads applied to the newly converted RFR trades.

ACCESSING REPORTS

Reports are available via existing reporting delivery methods. For client access to reports via Direct Client Reporting, please contact the Onboarding team at SwapClear.ClientOnboarding@lch.com.

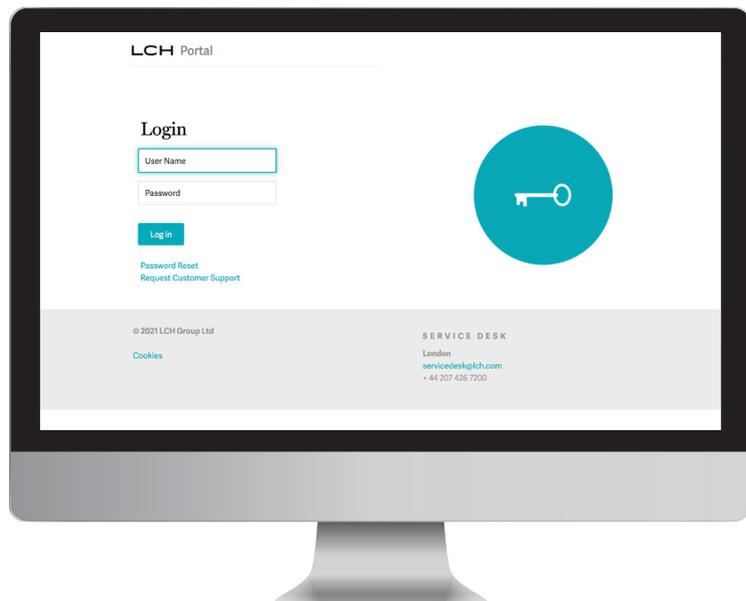
Tools and Reports Required	Title	Description	Accessibility		
			Member	Clearing Broker	Client
Access to Portal		Use the LCH Portal to submit requests for Non-Economic Amends (NEAs)	✓	✓	✓
Access to NEAs on Portal		A step-by-step user guide is available in the Non-Economic Amends tool	✓	✓	✓
REP00001/c REP0000F1		Trade Level Details <ul style="list-style-type: none"> For users looking to unwind positions ahead of the conversion: contains trade level details, including the SD Trade ID (Client ID), which can be used to "link" LIBOR positions to new RFR positions For members: the Index Name can be found under columns "T" and "U" (ReceiveLeg and PayLeg) 		✓	
REP00315/c	Trade Level Compensation Reports	Trade Level Report <ul style="list-style-type: none"> Provides the computed cash compensation under an RFR scenario Compensation is calculated as the difference between the NPV of all future cash flows Produced: EOD 	✓	✓	✓
REP00318/c		<ul style="list-style-type: none"> A new daily report for House Members providing a list of all their trades that have incurred a Fallback or conversion fee Includes the fee amount per trade, which will be reported on the last business day of the month Live since 30 May 2021; data only visible from 30 September 2021 		✓	✓

Tools and Reports Required	Title	Description	Accessibility		
			Member	Clearing Broker	Client
REP00084c		<ul style="list-style-type: none"> Newly created trade details All trade level economics will be reported 		✓	
REP00045/c		<ul style="list-style-type: none"> Explains the Settlement of Compensation Amount for the EONIA to €STR conversion LCH will book the cash compensating swaps for members and clients Cash compensating swaps will be 1 euro notional €STR trade with a minimum remaining term to maturity 	✓	✓	✓
REP00002/c and REP00016/c	EONIA to €STR	<ul style="list-style-type: none"> A coupon on trades to be settled on the Monday/Tuesday following the conversion will have been instructed on the LIBOR trade prior to the conversion weekend, rather than on the RFR converted swap The LIBOR trade will not be populated in the Monday reports, having been terminated over the conversion weekend Any such coupons from these trades will be shown as "OTC Settled" (as opposed to "Settled") in REP00002 Friday's REP00002 and REP00016 can be used to reconcile the coupon settlement 	✓	✓	✓
REP00093/c	Compression	<ul style="list-style-type: none"> Generated 5 times per day and lists all trades eligible for blended rate compression Can also be used for LCH SMART for compression to simulate the results of blended rate compression 	✓	✓	✓
REP00094/c	Compression	Generated after each netting or blending cycle to show the results of the most recent compression cycle	✓	✓	✓
REP00319	Index Transition Spread	This is a reference report that details the spreads applied to RFR converted trades, per IBOR currency/index/tenor combination	✓	✓	✓

Accessing the Enhanced LCH Portal

A new [LCH Portal](#) screen provides visibility into the indicative impact of the conversion, enabling members, clients and clearing brokers to view their in-scope swaps, indicative cash compensation, RFR swaps and overlay swaps.

Log in to the [LCH Portal](#) here or email the Onboarding team at SwapClear.ClientOnboarding@lch.com to request access.



LCH continues to support members and clients to transition to alternative RFRs with clearing eligibility for swap products that help to drive their adoption.

Trade Booking and Reporting

In order to update participants on the booking and reconciliation of any new swaps (i.e. amended RFR conversion outputs and compensation swaps), LCH will leverage its existing messaging and reporting functionality.

Members will receive details of the swaps via ClearLink messaging, and reports will be provided to participants (members and clients) via existing delivery methods. In addition, members and clients will also be able to extract the details of the compensating swaps via the [LCH Portal](#). The [LCH Portal](#) will be available on the Saturday of the conversion weekend for members to retrieve reports. Members and clients can also retrieve their reports through SFTP at any time.

Messaging Method	Description	Member	Clearing Broker	Client
ClearLink	<ul style="list-style-type: none"> Messaging tool designed to keep members and clearing brokers updated on new trade activity, communicated directly from LCH to members and clearing brokers via the ClearLink API Members can use ClearLink during the IBOR conversion to manage IBOR terminations and RFR bookings 	✓	✓	
ATSS Sync	<ul style="list-style-type: none"> Messaging service that allows participants to synchronise their LCH and MarkitWire portfolio by auto-delivering new LCH trade events to MarkitWire Members and clients can use ATSS Sync to ensure their MarkitWire portfolio is up to date with their LCH trade portfolio during the conversion Members and clients can register for ATSS Sync using the forms available in the LCH Secure Area 	✓		✓
ClearConnect	<ul style="list-style-type: none"> Trade delivery tool enabling participants to auto-deliver trade details from their LCH portfolio to a SEF Available to members and clients via the LCH Portal Members and clients can use ClearConnect ahead of the conversion to manage their IBOR portfolio by routing trade details to SEFs, simplifying the trade unwind and compression process 	✓		✓

ATSS Synchronisation

ATSS Synchronisation allows SwapClear users to synchronise their cleared portfolio and their MarkitWire trade population. This functionality is being enhanced to include the results of LIBOR conversions to be communicated to MarkitWire. Customers are required to submit the relevant onboarding forms via the [LCH Secure Area](#) to gain access to this functionality:

- 01. Direct members with existing access:** Members are required to submit an amended onboarding form requesting to receive messages for the conversion events. In addition, the Markit Sync .csv form requesting to receive new trade messaging is required, and members should also contact MarkitWire with their onboarding request.
- 02. Direct members without existing access:** Members wishing to be onboarded to this functionality are required to submit an ATSS election form to LCH and MarkitWire. The Markit Sync .csv form requesting to receive new trade messaging is also required. The LCH form can be found in the [LCH Secure Area](#).
- 03. Clients with existing access:** Onboarding to the enhanced functionality is handled via an online submission by each clearing broker with whom the client has a relationship. Clients are to request that each clearing broker submit an enhancement request to LCH via the existing LCH Onboarding tool.
- 04. Clients without existing access:** Clients wishing to be onboarded to the functionality are to request that each clearing broker they have a relationship with submit an onboarding request form via the existing LCH Onboarding tool. Clients should also contact MarkitWire with their onboarding request.

MarkitWire

MarkitWire: Members and clients can access more information on the MarkitWire implementation via their MarkitServ Documentation Portal. For onboarding to MarkitWire, the 'Netting Synchronisation – Onboarding Instructions' form should be used to request setup for reconciliation of the termination of the original LIBOR trade, the newly booked RFR and the cash compensation swap.

Contact Us

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WEBSITE

lch.com/services/swapclear/benchmark-reform

ABOUT LCH AND SWAPCLEAR

LCH has always built strong partnerships across the global markets to deliver best-in-class risk management. With our accumulated experience and expertise, we are uniquely positioned to help participants increase capital and operational efficiency, while adhering to an expanding and complex set of cross-border regulations.

SwapClear is the world's leading OTC interest rate derivatives clearing service, and provides access to the deepest pool of dealer liquidity. Trusted for more than two decades by our members, it is now the clearing service of choice for many of the world's leading buy-side participants.

Working together with our stakeholders, SwapClear and the other LCH services have helped the market transition to central clearing by introducing an array of innovative enhancements. These include solo compression with blended rate, an expanded set of customer protection options, and LCH Spider — our portfolio margining tool. When combined with an uncompromising commitment to service delivery, it is no surprise that LCH is the natural choice of the world's leading market participants.

LCH works across a range of execution venues and is majority-owned by the London Stock Exchange Group (LSEG), a diversified international exchange group that sits at the heart of the world's financial community.

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