

LCH

RFR transition in cleared swap markets



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TRADE

RFR Transition in cleared swap markets

LCH Group (“LCH”), and its SwapClear business, strongly supports the continuing global efforts to transition from existing benchmarks (“*IBORs”) to risk-free rates (“RFRs”) where relevant.

In response to the discontinuation of *IBOR rates in recent years, LCH has successfully migrated its SwapClear Contracts linked to these outgoing *IBORs into their RFR equivalents. The most recent example is the transition/conversion of USD LIBOR SwapClear Contracts into SOFR equivalents. This process followed extensive consultation with SwapClear members and clients, and it was completed by LCH in two tranches in Q2 2023.

With Rates markets in different jurisdictions at different stages in terms of transition to RFRs, the purpose of this document is **threefold**:

01

To highlight the key considerations in terms of potential actions and timelines, including minimum notice periods, required for planning and delivery of RFR Transition initiatives in individual cleared swap markets.

02

To provide a comprehensive list of steps and events, involving both the official sector and market participants, to support an orderly benchmark transition process based on past experience, which may be used as reference to support or stimulate conversations around RFR transition plans as necessary.

03

To offer LCH's support and experience to further contribute to the market dialogue around RFR transition initiatives, by e.g. participating in international or local Public/Private WGs as well as through ad hoc interaction with the official sector and our users.

RFR Transition in cleared swap markets: a SwapClear snapshot

EMEA

Currency	Prevailing Benchmark	Rate type
GBP	SONIA	RFR
CHF	SARON	RFR
EUR	EURIBOR	*IBOR
ILS	TELBOR	*IBOR
ZAR	JIBAR	*IBOR
PLN	WIBOR	*IBOR
SEK	STIBOR	*IBOR
DKK	CIBOR	*IBOR
NOK	NIBOR	*IBOR
CZK	PRIBOR	*IBOR
HUF	BUBOR	*IBOR

APAC

Currency	Prevailing Benchmark	Rate type
JPY	TONA	RFR
SGD	SORA	RFR
THB*	THOR	RFR
AUD	BBSW	*IBOR
NZD	BKBM	*IBOR
HKD	HIBOR	*IBOR
TWD*	TAIBOR	*IBOR
CNY*	CNY-Fixing Repo Rate	*IBOR
KRW*	CD 91D	*IBOR
INR*	MIBOR	*IBOR

* Non-deliverable

Americas

Currency	Prevailing Benchmark	Rate type
USD	SOFR	RFR
CAD	CDOR	*IBOR
MXN	28D-TIIE	*IBOR
BRL*	CDI	OIS
CLP*	ICP (TNA)	*IBOR
COP*	IBR	*IBOR

* Non-deliverable

In 2021, LCH successfully converted SwapClear contracts in non-USD LIBORs to corresponding RFRs (CHF LIBOR to SARON, EUR LIBOR to €STR, GBP LIBOR to SONIA and JPY LIBOR to TONA) as well as from EUR EONIA to €STR equivalents.

In 2023, LCH successfully completed the migration of relevant SwapClear contracts from USD LIBOR, SGD SOR and THB THBFIX to SOFR, SOR and THOR equivalents respectively.

In 2024, SwapClear will transition relevant CAD CDOR and MXN 28D-TIIE SwapClear contracts to CORRA and Fondeo (O/N TIIE) respectively.

RFRs Swap Transition: public/private coordination

The transition to RFRs has been underpinned by a series of statements and/or market events that guided market participants with regards to:

target timelines and roadmap applicable in that particular market

key milestones needed to ensure progress against intended transition plans and ultimate delivery

market conventions, best practices and/or applicable behavioural guidance, rules and exceptions

Such events supported the development of liquidity in products linked to the underlying RFR, including in the derivatives market, and were critical to ensure clarity at the market level and to ensure a smooth transition, thus minimising the risk of market disruption.

The next slide includes a comprehensive (but not necessarily exhaustive) list of steps that are relevant to an orderly transition process, based on past experience.

RFR Swap Transition: comprehensive set of steps for an orderly process

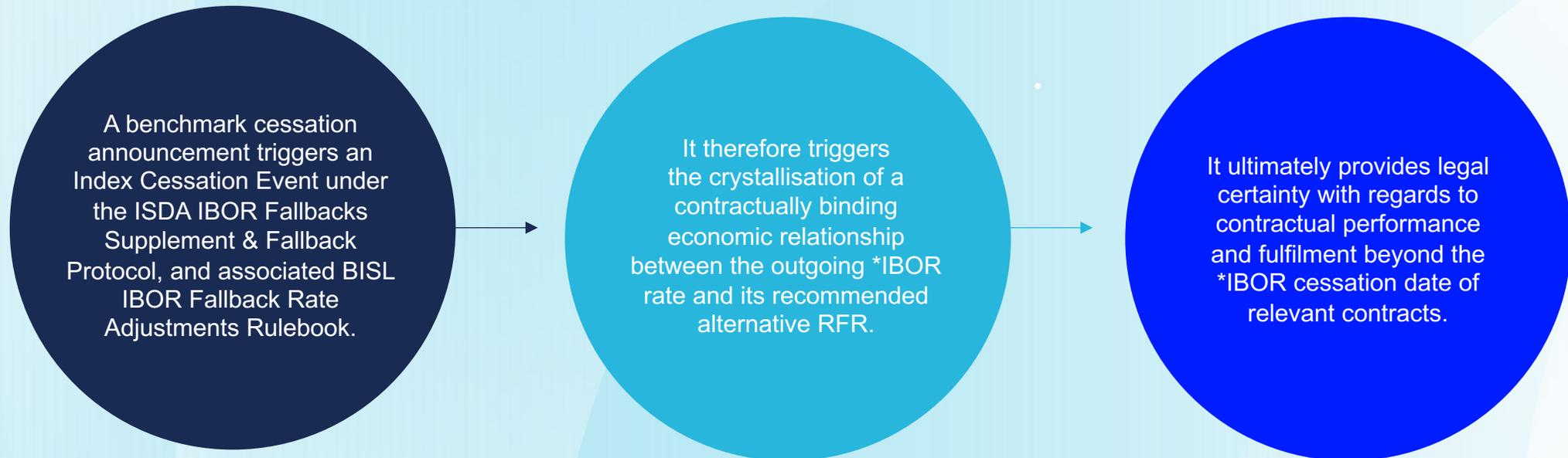
Steps	Level of engagement	IBOR Transition Process*
1	Market level	Official sector convenes Public/Private WGs to identify alternative RFR and create an implementation plan for an orderly adoption
2	Market level	RFR WG sets out a Transition Plan/Roadmap outlining timelines and key milestones
3	Market level	RFR selected as the recommended alternative to the outgoing *IBOR rate
4	Market level	ISDA develops the RFR definition (if not already available) and ISDA/WG to support adoption of the RFR as Fallback rate for the outgoing *IBOR
5	Official sector-driven	Authorities/Benchmark Administrator announce that the publication of the outgoing *IBOR cannot be guaranteed beyond a certain date
6	Official sector-driven	First publication of the RFR identified as recommended alternative by relevant administrator (e.g. central bank)
7	CCPs	CCPs launch Cleared OTC Swap Eligibility for the RFR identified as recommended alternative (OIS conventions already in place for bilateral)
8	CCPs	CCPs to consider whether any discounting/PAI transition is needed (potentially identified in (2)) and deliver the event as necessary
9	Coordinated Public/Private sector statements	Formal announcements by the Benchmark administrator, by relevant Authorities and by ISDA regarding the cessation of the outgoing *IBOR beyond a final publication date, which trigger an ISDA Cessation Event and crystallisation of Spread Adjustments as part of the Fallback relationship. See next slide.
10	Official sector-driven	Authorities announce "RFR First" to prioritise RFR Derivatives trading.
11	Official sector-driven	Statement by Authorities pointing out that continued new use of the outgoing *IBOR beyond a certain date creates safety and soundness risks, prohibiting such use with limited exceptions (e.g. for risk-reduction and/or participation in CCPs' default management processes)
12	CCPs	CCP Conversion Event(s) of Cleared OTC *IBOR portfolios
13	CCPs	CCPs to withdraw clearing eligibility for the outgoing *IBOR rate
14	Official sector-driven	Final publication of the outgoing *IBOR rate
15	Market level	Potential creation of a Term version of the RFR identified as recommended alternative

*Steps listed are based on the USD LIBOR transition process, which can be considered as a solid reference at the international level. See slide 8 and Appendix.

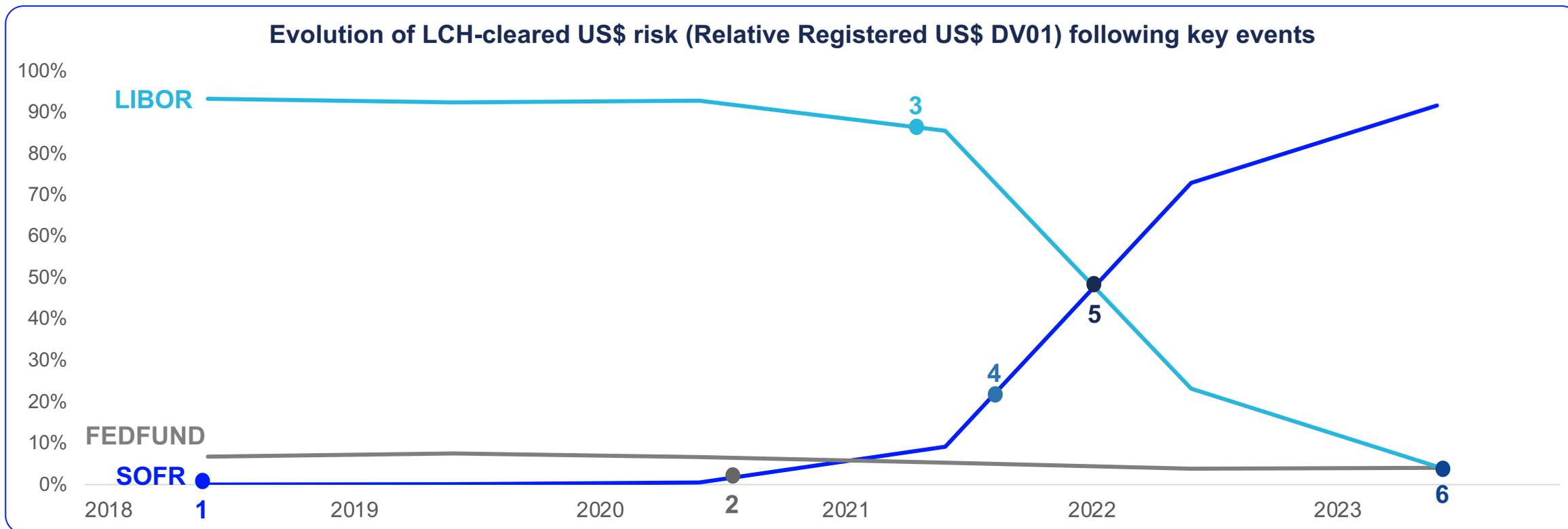
RFRs Swap Transition: key considerations from a CCP perspective

*IBOR cessation announcement

As evidenced in the next slide, a statement or a series of coordinated statements confirming that a benchmark will no longer be published beyond a certain date has proved to be the single strongest catalyst driving transition to RFRs, as it is the most effective way to provide certainty to the market and to support definitive planning by market participants.



RFR swap transition: the USD LIBOR example



Key Events

1 LCH launched SOFR clearing eligibility (July 2018)

2 US\$ PAI & Discounting Transition (Oct 2020)

3 ISDA Cessation Event for LIBORs in all currencies, including US\$ (March 2021)

4 SOFR First Phase 1 - Linear Swaps (effective July 2021)

5 Prohibition of new USD LIBOR use with limited exceptions (effective Jan 2022)

6 LCH conversion completed in two tranches

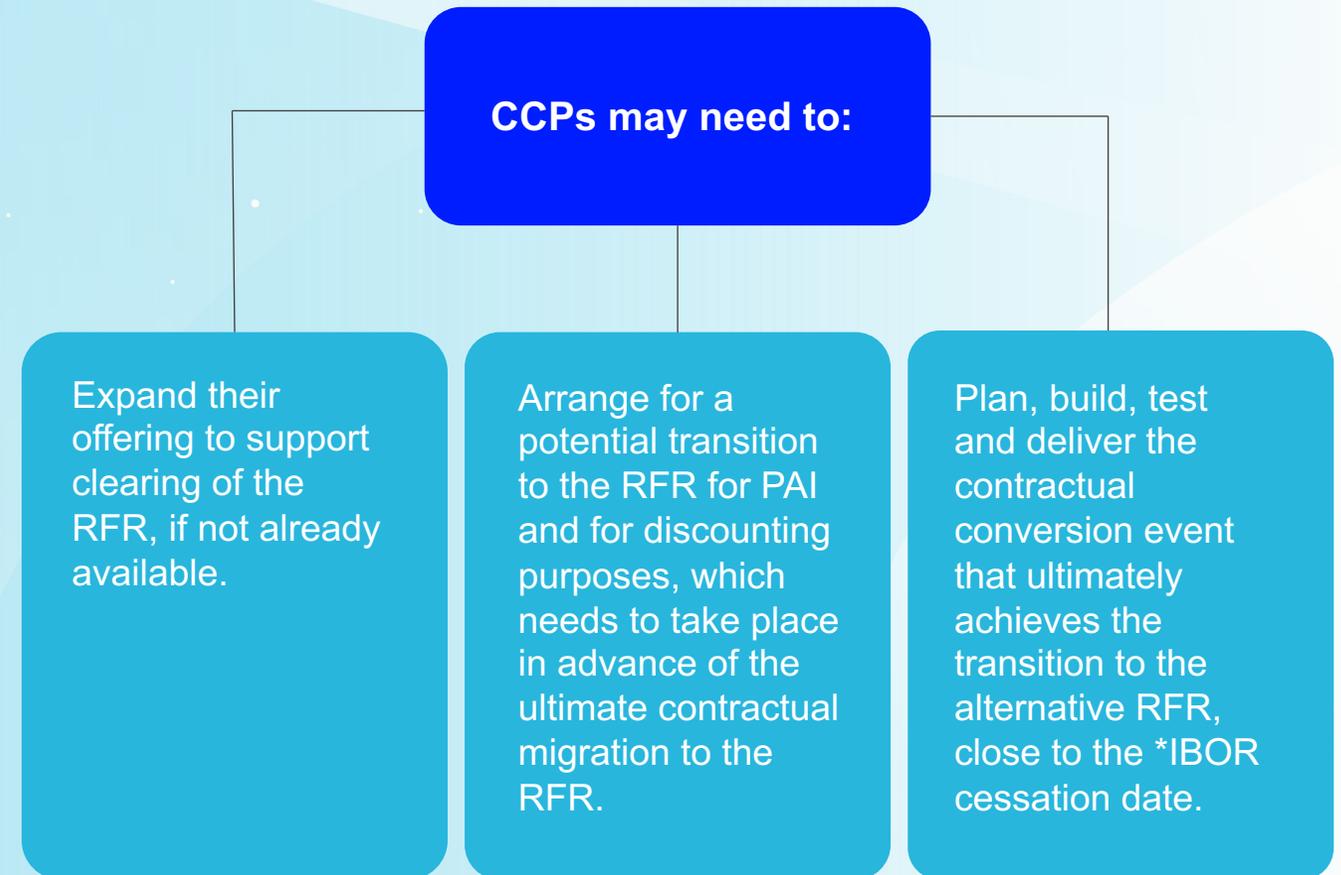
*The evolution of LCH-cleared registered US\$ Notional over the period followed a similar pattern. For a full list of key events relevant to the USD LIBOR transition, please see Appendix.

RFRs Swap Transition: key considerations from a CCP perspective

Minimum notice periods

- An adequate **forward notice of a potential cessation of a benchmark**, specific to a certain tenor or for all relevant tenors, **is critical for all market participants**.
- **LCH encourages an adequate time window between a potential benchmark (*IBOR) cessation announcement and its actual cessation date, being no less than 12 months and ideally 18-24 months.**
- This time is needed to complete the necessary work in preparation for and delivery of key events underpinning the transition to the alternative RFR, which requires strong coordination amongst all stakeholders and adequate contingency planning.

The above considerations also apply in case a benchmark may be subject to modifications and/or events different from a permanent discontinuation that may materially alter the reliance of market participants on that specific rate and may negatively impact market liquidity, such as a material change in methodology and/or a prohibition of use of the (*IBOR) benchmark beyond a certain date.



RFRs Swap Transition: key considerations from a CCP perspective

Additional considerations

- CCPs need support from the official sector and market participants to ensure **availability of market data**, including with regards to relevant data history and to establish live market data feeds, needed for the launch and valuation of swaps linked to the alternative RFR.
- Clearing Brokers, who provide vital services to the end-users of cleared swaps markets, need sufficient lead times to design and schedule delivery of necessary extensions to their service offerings.
- A transition underpinned by **a benchmark (IBOR) cessation date occurring at the end of June is preferable**, and it proved to work very well in the recent past, e.g. in the case of USD LIBOR conversion. In particular:
 - This timing may facilitate the transition operationally, e.g. some firms (including LCH) might need to implement tech freeze periods towards the end of the year, narrowing down the time window for the delivery of the transition/conversion events and related contingency planning.
 - Similarly, year-end is a period typically more prone to staff holidays, which may be relevant from a resourcing perspective for both delivery and contingency planning.
 - A benchmark (IBOR) cessation date occurring at the end of June may also help smoothen the impact of the transition by allowing more time for market participants to optimise their outstanding swaps portfolios post CCP conversion events, and before year end (e.g. for reporting and capital purposes).
- When restrictions or prohibition of use of a benchmark (IBOR) are envisaged either before a cessation date or before an event that may materially alter the market reliance on such rate (and hence liquidity), **it is necessary to ensure that certain types of activity fall under permitted exceptions, such as for CCPs' default management purposes.**

RFR Transition in cleared swap markets

Final considerations

SwapClear stands ready to further support the official sector and our users in those markets where a transition to RFRs is already underway, as well as where conversations at the market level are at early stages and/or transition roadmaps are not fully defined yet.

- **A strong public/private coordination and a clear transition plan, underpinned by an *IBOR cessation announcement and adequate forward notices, are crucial to the successful achievement of the transition to RFRs in any marketplace.**
- A RFR transition process modelled to the greatest extent in coherence with the considerations articulated in this deck would therefore help all market participants, including CCPs, and ultimately support an orderly transition to RFRs.
- The USD LIBOR migration process and related timelines/key events may serve as solid reference in this regard for both the official sector and market participants.
- Although CCPs play a crucial role in facilitating transition to RFRs, **CCPs' conversion processes should be seen as a backstop mechanism** designed to facilitate the transition where market participants have been unable to convert their outgoing *IBOR risk arising from their cleared swaps in the market.

If you have any questions, or if you would like to discuss this further, please reach out to: LCHSales@lseg.com.

Appendix

RFR Swap Transition: the USD LIBOR example

Date	USD LIBOR Transition Process
2014	US Authorities convene ARRC to identify alternative RFRs and create an implementation plan to support an orderly adoption
May 2016	ARRC sets out first Paced Transition Plan covering key milestones (arcc-interim-report-and-consultation.pdf (newyorkfed.org) p24)
July 2017	ARRC selects SOFR as the recommended alternative to USD LIBOR
July 2017	Andrew Bailey (Head of UK FCA) announces LIBOR publication cannot be guaranteed beyond 31 December 2021 (The future of LIBOR FCA)
April 2018	First publication of SOFR by US FRBNY
July 2018	CCPs, including LCH, launch Cleared OTC SOFR Swap Eligibility (EFFR discounted)
November 2018/ July 2019	LCH launches sequential consultations with its participants regarding the transition to SOFR discounting (Consultation on transition to SOFR discounting LCH Group)
October 2020	US\$ PAI & Discounting Transition (from EFFR to SOFR)
Dec 20/May 22	LCH launches sequential consultations with its participants regarding the conversion of USD LIBOR-based IRS into RFR-driven OIS, with the ultimate consultation outcome published in July 2022 (LCH's Consultation on Conversion of Outstanding USD LIBOR® SwapClear Contracts LCH Group)
March 2021	ISDA Cessation Events for LIBORs in all currencies, triggering crystallisation of Spread Adjustments. Dates set as 31 December 2021 for non-USD LIBORs and 30 June 2023 for USD LIBOR – ISDA Guidance on FCA Announcement
July 2021	CFTC announces “SOFR First”, a 4-phase initiative to prioritise SOFR Derivatives trading. Phase 1 (Linear Swaps) effective July 2021
October 2021	Joint statement by 5 US Regulatory Agencies stating that continued new use of USD LIBOR beyond 31 December 2021 creates safety and soundness risks, prohibiting use with limited exceptions (Joint Statement on Managing the LIBOR Transition (occ.gov))
April/May 2023	CCP Conversions of Cleared OTC USD LIBOR portfolios, including two-tranche LCH conversion
30 June 2023	Final publication of (representative) USD LIBOR in all remaining tenors

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