

SUBMISSION COVER SHEET

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Registered Entity Identifier Code (optional): 23-082

Organization: Chicago Mercantile Exchange Inc. ("CME")

Filing as a: DCM SEF DCO SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 01/30/23 Filing Description: Modification of Cleared Over-the-Counter ("OTC") U.S. Dollar ("USD") Denominated Interest Rate Swap Products Referencing the London Interbank Offered Rate ("LIBOR") and Limitation of Acceptance for Clearing and Modification and Withdrawal of Clearing Support for OTC USD LIBOR Basis Swap Products

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

Rule Numbers:

New Product

Please note only ONE product per Submission.

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

Product Terms and Conditions (product related Rules and Rule Amendments)

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

Official Name(s) of Product(s) Affected: See filing.

Rule Numbers: See filing.

January 30, 2023

VIA ELECTRONIC PORTAL

Mr. Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

**Re: CFTC Regulation 40.5(a) Request for Approval. Modification of Cleared Over-the-Counter (“OTC”) U.S. Dollar (“USD”) Denominated Interest Rate Swap Products Referencing the London Interbank Offered Rate (“LIBOR”) and Limitation of Acceptance for Clearing and Modification and Withdrawal of Clearing Support for OTC USD LIBOR Basis Swap Products.
CME Submission No. 23-082**

Dear Mr. Kirkpatrick:

Pursuant to Commodity Futures Trading Commission (“CFTC” or “Commission”) Regulation 40.5(a), Chicago Mercantile Exchange Inc. (“CME” or the “Clearing House”), a registered derivatives clearing organization (“DCO”) under the Commodity Exchange Act, as amended (“CEA” or “Act”) hereby voluntarily submits for Commission review and approval modifications to certain CME cleared over-the-counter (“OTC”) Interest Rate Swap (“IRS”) products in connection with the cessation of the bank panel of the USD London Interbank Offered Rate (“LIBOR”) benchmark rate¹ and the resulting scheduled future cessation or loss of “representativeness” (as applicable) of such rate following publication on June 30, 2023. This submission shall become effective on March 17, 2023.

Basis Swaps referencing USD LIBOR

- modifications applicable to certain CME cleared OTC USD denominated Interest Rate Basis Swap products that reference USD LIBOR (except USD LIBOR vs Fed Funds basis swaps²) (the “Basis Swaps”), to convert each such cleared Basis Swap into corresponding CME cleared fixed-floating interest rate swaps (the “Basis Swap Conversion”), to take effect following close of business on Friday, March 24, 2023³ (the “Basis Swap Conversion Date”);
- the withdrawal of clearing support for the Basis Swaps following the Basis Swap Conversion;

¹ The family of interest rate benchmarks known as “LIBOR” are also known as “ICE LIBOR” and are administered and published by ICE Benchmark Administration Limited, a U.K. authorised and regulated benchmark administrator. ICE LIBOR is a registered trademark of Intercontinental Exchange Holdings, Inc. and is used under license.

² USD LIBOR vs. Fed Funds basis swaps are excluded from the Basis Swap Conversion. CME will retain these contracts as basis swaps and later convert them to SOFR vs Fed Funds Basis Swaps as a part of the Primary Conversion (as defined below).

³ CME proposes to reserve the right in limited circumstances to amend the Basis Swap Conversion Date in its sole and absolute discretion, for example where implementation of the conversion process on a previously communicated date could result in an unacceptable level of operational or market disruption or where financial stability issues could threaten the orderly transition.

Other IRS referencing USD LIBOR

- modifications applicable to certain CME cleared OTC USD denominated IRS products that reference the USD LIBOR rate⁴, to convert cleared trades in such cleared swap products in each case into:
 - corresponding CME cleared overnight index swaps (“OIS”) referencing the Secured Overnight Financing Rate (“SOFR”) interest rate benchmark; and
 - corresponding short-dated CME cleared USD LIBOR IRS to account for representative floating and fixed coupons under the original swap,

to take effect following close of business on Friday, April 21, 2023⁵ (the “Primary Conversion Date”), with the exception of

- USD LIBOR denominated Zero Coupon Interest Rate Swaps (“Zero Coupon IRS”)⁶; and
- USD LIBOR IRS submitted for clearing after close of business on the Primary Conversion Date but before close of business on July 3, 2023,

which shall be converted on July 3, 2023 (the “Secondary Conversion Date”) (the “USD LIBOR Conversion”); and

- the limitation of clearing support for USD denominated IRS referencing USD LIBOR following the Secondary Conversion Date, with the exception of spot and forward starting USD LIBOR IRS with a start date after close of business on the Secondary Conversion Date, in order to support such swaps arising from processing of bilateral Swaption expiries, which shall continue to be accepted for clearing by CME from close of business on the Secondary Conversion Date and shall be converted by CME into corresponding USD SOFR referencing OIS at close of business on the date of acceptance for clearing by CME;

(the Basis Swap Conversion and the USD LIBOR Conversion, together, the “USD LIBOR Transition”).

CME is a systemically important derivatives clearing organization (“SIDCO”)⁷ and offers clearing for all products traded on the CME exchange, The Board of Trade of the City of Chicago, Inc., New York Mercantile Exchange, Inc., and Commodity Exchange, Inc. as well as other cleared products, and provides clearing services to third parties.

⁴ USD LIBOR IRS in the final floating rate period where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date, but which do not settle prior to the Scheduled Final Representative USD LIBOR Publication Date will not be subject to the Conversion process and will mature and settle in accordance with their original terms.

⁵ CME proposes to reserve the right in limited circumstances to amend the Primary Conversion Date in its sole and absolute discretion, for example where implementation of the conversion process on a previously communicated date could result in an unacceptable level of operational or market disruption or where financial stability issues could threaten the orderly transition.

⁶ Zero Coupon IRS are CME cleared interest rate swaps with no interim coupon payments, paying only a single coupon payment at maturity of the swap.

⁷ On July 18, 2012, CME Inc. was designated as a systemically important financial market utility under Title VIII of the Dodd-Frank Act.

The Basis Swap Conversion is necessary as a preliminary step as part of the wider process to complete the transition of cleared trades in CME cleared interest rate swap (“IRS”) products referencing USD LIBOR rates to SOFR ahead of the scheduled discontinuation or “non-representativeness” (as applicable) of the USD LIBOR rate. CME will convert CME cleared USD LIBOR Basis Swaps into the corresponding CME cleared USD fixed/floating IRS, as applicable, to take effect on the Basis Swap Conversion Date. The Basis Swap Conversion will not have an economic impact on position holders and CME will remain neutral from a risk perspective.⁸

The modification to implement the Basis Swap Conversion is set out in the Clearing Advisory Notice attached as Exhibit 1, effective March 24, 2023. No amendments to the CME Rulebook are required to effect the Basis Swap Conversion.

From the Basis Swap Conversion Date, CME’s open interest in the Basis Swaps will be zero. With effect from close of business on the Basis Swap Conversion Date, CME will withdraw clearing support for the Basis Swaps and will therefore cease to accept for clearing trades in the Basis Swaps from that time. No amendments to the CME Rulebook are required to effect the withdrawal of clearing support for the Basis Swaps and CME will make public the withdrawal of clearing support for the Basis Swaps by publishing to the marketplace the Clearing Advisory Notice attached as Exhibit 1. The list of basis swap contracts accepted for clearing by CME will be updated on the CME Group website to reflect the delisting of the Basis Swaps.

The modification to implement the USD LIBOR Conversion is set out in the Clearing Advisory Notice attached as Exhibit 2, effective April 21, 2023. No substantive amendments to the CME Rulebook are required to effect the USD LIBOR Conversion.⁹ By publishing a Clearing Advisory Notice to the marketplace, CME will make public the limited withdrawal of clearing support for USD LIBOR IRS from the Secondary Conversion Date (except that CME will continue to provide clearing support for spot or forward starting USD LIBOR IRS where the start date of such swaps is after the Secondary Conversion Date, in order to support the clearing of swaps arising from the exercise of relevant bilateral Swaptions after the Secondary Conversion Date, until further notice).¹⁰ The list of IRS contracts accepted for clearing by CME will be updated on the CME Group website to reflect the limitation on acceptance for clearing of the relevant IRS contracts and the product rules for USD LIBOR IRS will be amended in Rule 90102.E.1. (“Interest Rate Swaps Rate Options”), as indicated in the attached Exhibit 3.

The methodology for each of the Basis Swap Conversion and the USD LIBOR Conversion shares a number of the key characteristics of the equivalent conversions effected by CME in 2021 in relation to non-USD

⁸ Note that position holders will continue to have exposure in USD LIBOR referencing IRS following the Basis Swap Conversion. CME proposes to transition USD LIBOR exposures to the SOFR OIS during the following Primary and Secondary Conversion processes.

⁹ CME Rule 90102.H (Application of Permanent Cessation Fallbacks) will not apply to the USD LIBOR IRS contracts which are the subject of this submission.

¹⁰ CME will cease to accept new executions of USD LIBOR Swaps for clearing following the Index Cessation Effective Date, except those spot or forward starting USD LIBOR Swaps that arise as a result of bilateral Swaptions exercise and that may be submitted for clearing after the relevant Index Cessation Effective Date. CME proposes to convert any USD LIBOR swap submitted for clearing after the Secondary Conversion Date, where the start date of such swap is on or after the date of submission, into a corresponding standardized SOFR OIS on the date of acceptance, utilizing the same methodology applicable to the Secondary Conversion Date process. The Clearing Advisory Notice will be in the form set out in Exhibit 2 and will advise market participants of the limited withdrawal of clearing support for the contracts.

LIBOR OTC IRS under which CME effected the successful transition of British Pound, Japanese Yen and Swiss Franc LIBOR OTC IRS to the relevant nominated successor risk-free rate (“RFR”) in each case ahead of the scheduled date of cessation / non-representativeness of such LIBOR rates following publication on December 31, 2021 (the “Non-USD LIBOR Conversion”).¹¹ The only material difference between the USD LIBOR Conversion and the equivalent Non-USD LIBOR Conversion is that, with the exception of Zero Coupon Swaps¹², CME will convert certain affected USD LIBOR IRS on the Primary Conversion Date into (i) a corresponding short dated USD LIBOR IRS and (ii) a corresponding forward starting SOFR OIS; under this approach, each relevant short dated USD LIBOR IRS is designed to account for any remaining representative unpaid USD LIBOR fixings as at the “Index Cessation Effective Date” (as defined below) (and the start/end dates of the swap correspond to the representative LIBOR floating period(s) with unsettled coupons). The relevant forward starting SOFR OIS captures all future cash flows and the cash compensation, with a start date which equals the start of the floating period following the Index Cessation Effective Date. In contrast, under the Non-USD LIBOR Conversion process such amounts representing known or fixed coupon payments accrued but not paid under the terms of the original Non-USD LIBOR IRS were accounted for by way of addition of fees to each converted RFR swap resulting from the Non-USD LIBOR Conversion process. In effect, the short-dated USD LIBOR IRS replaces the “coupon fee” used in the Non-USD LIBOR Conversion. The approach adopted by CME for the USD LIBOR Conversion reflects feedback from market participants during the consultation process. The principal advantage of the proposed approach for the USD LIBOR Conversion is that this mechanism maintains representative USD LIBOR fixings that occur between the Primary Conversion Date and the Index Cessation Effective Date. This approach allows for the majority of USD LIBOR Swaps to be converted on a single conversion date (the Primary Conversion Date) and also settles all representative USD LIBOR payments. In addition, this model accounts for the compounded fixings in compounding and Zero Coupon Swaps.

1. Background

Scheduled “Non-representativeness” of USD LIBOR

Following industry consultations,¹³ on March 5, 2021, IBA, the UK FCA regulated and supervised administrator of USD LIBOR, announced that in the absence of sufficient panel bank support and without the intervention of the FCA to compel continued contributions to USD LIBOR, it would not be possible for IBA to continue to publish the relevant USD LIBOR settings on a “representative” basis beyond June 30,

¹¹ Ahead of the Non-USD LIBOR Conversion, CME effected a conversion of GBP and JPY denominated interest rate basis swap products in September 2021, converting each CME cleared affected basis swap contract into corresponding CME cleared fixed-floating interest rate swaps- see <https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2021/9/21-412.pdf> The Non-USD LIBOR Conversion commenced in December 2021 ahead of the scheduled cessation / non-representativeness of certain non-USD LIBOR rates. See CME Submission 21-515, accessible at <https://www.cftc.gov/sites/default/files/filings/orgrules/21/11/rule111821cmedco001.pdf>.

¹² For Zero Coupon Swaps, CME will account for compounding of representative USD LIBOR fixings through a fee settling on the future coupon payment date on the resulting SOFR OIS. It is not necessary to create a short-dated USD LIBOR IRS for such swaps as the accrued USD LIBOR periods are built into the replacement SOFR OIS notional amount. Converting Zero Coupon Swaps on the Secondary Conversion Date rather than before the Index Cessation Effective Date allows CME to utilize actual fixings instead of forecasted fixings for the final representative LIBOR settings.

¹³ The consultation was published by IBA on December 4, 2020 and closed on January 25, 2021 and is available at: https://www.theice.com/publicdocs/ICE_LIBOR_Consultation_on_Potential_Cessation.pdf.

2023.¹⁴ In coordination with the IBA announcement, on March 5, 2021, the FCA confirmed that the FCA would not require any panel banks to continue to submit to USD LIBOR rates after publication on June 30, 2023 or to require IBA to continue to publish LIBOR on the basis of panel bank submissions beyond such date (the “FCA Announcement”).¹⁵ While the FCA Announcement noted that the FCA reserved its rights to require continued publication of the 1- month, 3-month and 6-month US dollar LIBOR settings on a “synthetic” basis for a further period after end-June 2023, the FCA further noted that LIBOR settings published on this synthetic basis will no longer be representative of the underlying market and economic reality the setting is intended to measure. Consequently, the FCA concluded and announced that, in the case of three-month USD LIBOR, such rate will no longer be representative of the underlying market and economic reality that such setting is intended to measure and that representativeness will not be restored, immediately after publication on June 30, 2023 (the “Scheduled Final Representative USD LIBOR Publication Date”). The FCA Announcement also confirmed that such statements were issued “in the awareness that it will engage certain contractual triggers for the calculation and future application of fallbacks that are activated by pre-cessation or cessation announcements made by the FCA (howsoever described) in contracts”. Therefore, the FCA and other regulatory authorities will require that contractual fallbacks should be implemented in bilateral uncleared, cleared and exchange traded derivative markets, triggered by the scheduled date that the USD LIBOR rate ceases to be representative, even where the FCA determines that a “synthetic” USD LIBOR shall be published after the Scheduled Final Representative USD LIBOR Publication Date.¹⁶

In response to the FCA Announcement, on March 5, 2021, ISDA confirmed that the FCA Announcement constitutes an “Index Cessation Event” under the ISDA Fallbacks Supplement and the ISDA 2020 IBOR Fallbacks Protocol for all USD LIBOR settings for derivative contracts incorporating the relevant ISDA terms, and ISDA further confirmed that, as a result, the fallback spread adjustment (which determines the fallback price of the resulting converted SOFR swap arising under the ISDA fallback methodology) published by Bloomberg Index Services Limited (“BISL”) was fixed as of the date of the announcement for such contracts.¹⁷ Under the terms of the ISDA contractual fallbacks for uncleared derivatives, following final publication of a “representative” USD LIBOR on June 30, 2023, the fallbacks for USD LIBOR derivatives under ISDA’s documentation would be implemented so that USD LIBOR swaps will be amended such that references to the USD LIBOR rate as the relevant floating rate option will instead reference forms of SOFR plus the fixed fallback spread adjustment on the first London banking day following the Scheduled Final Representative USD LIBOR Publication Date (the “Index Cessation Effective Date”). In response to the FCA Announcement and the related ISDA statement, Bloomberg issued a Technical Notice confirming that

¹⁴ See IBA Feedback Statement on consultation, March 5, 2021, available at:

https://www.theice.com/publicdocs/ICE_LIBOR_feedback_statement_on_consultation_on_potential_cessation.pdf

¹⁵ See p.2, FCA Announcement, available at <https://www.fca.org.uk/publication/documents/future-cessation-loss-representativeness-libor-benchmarks.pdf>

¹⁶ In November 2022, the FCA opened a public consultation on proposals to require publication of the 1-, 3- and 6- month USD LIBOR settings on a synthetic basis until end-September 2024, as well as the appropriate methodology for constructing such synthetic LIBOR settings, and what use of them should be permitted. The FCA confirmed that “while in our view synthetic LIBOR settings are a fair and reasonable approximation of what LIBOR might have been had it continued to exist, they are not representative of the markets that the original LIBOR settings were intended to measure.” The FCA has proposed that there would be limitations on use of such synthetic USD LIBOR settings, for example, supervised entities would not be permitted to use such rates except for legacy contracts specifically permitted by the FCA. The designation as a permanently unrepresentative benchmark also empowers the FCA to require the administrator of the benchmark to change the methodology of calculation. The FCA has proposed that synthetic US dollar LIBOR would be the sum of the CME Group Benchmark Administration Limited’s Term SOFR Reference Rate plus the ISDA fixed spread adjustment for the corresponding LIBOR setting. The FCA consultation paper is available at <https://www.fca.org.uk/publication/consultation/cp22-21.pdf>.

¹⁷ See ISDA announcement, available at <https://www.isda.org/2021/03/05/isda-statement-on-uk-fca-libor-announcement/>

March 5, 2021 was the “Spread Adjustment Fixing Date” for all LIBOR rates and published the fixed Spread Adjustment for USD 3M LIBOR of 0.26161% (the “Spread Adjustment”).¹⁸

Leadership from the Federal Reserve Board, the Federal Reserve Bank of New York and the CFTC applauded the developments represented by these announcements, noting that they provided a clear end-date for USD LIBOR and a clear path for the change to alternative reference rates and encouraged market participants to continue the transition to alternative reference rates.¹⁹

As a result of the FCA’s announcements, where USD LIBOR either ceases to be published or where it continues to be published after June 30, 2023 as a “non-representative” or “synthetic” rate, many market participants will no longer be permitted to enter into new contracts, or will otherwise wish to cease to make or will not be permitted to make use of that rate for cash and derivative market contracts. As a result, bilateral uncleared and cleared derivative market participants are required to put in place appropriate mechanisms to implement transition from USD LIBOR. In June 2022, the FCA welcomed the approach of CME and other major CCPs to undertake a CCP-led conversion of USD LIBOR swaps ahead of the Index Cessation Effective Date.²⁰ CME has undertaken extensive engagement with market participants on its proposals for the USD LIBOR Transition to provide for an orderly transition away from USD LIBOR for CME-cleared IRS.²¹

SOFR as Successor to USD LIBOR

In 2014, the Federal Reserve Board and the Federal Reserve Bank of New York convened the Alternative Reference Rates Committee (“ARRC”) tasked with the mandate of identifying a “nearly risk-free” successor reference rate (“RFR”) to the LIBOR benchmark interest rate for USD LIBOR. In 2017, the ARRC fulfilled this mandate by selecting SOFR, a reference rate administered by the Federal Reserve Bank of New York. SOFR provides a broad measure of the cost of borrowing USD cash overnight collateralized by US Treasury securities, which rate is based on overnight observable transactions in the active and liquid USD Treasury repo market.

The ARRC identified SOFR as the rate that represents best practice for use in new USD derivatives and other financial contracts and the ARRC’s Paced Transition Plan sets out milestones to promote and facilitate the transition away from USD LIBOR to SOFR.²² SOFR is considered to be more resilient than panel-based IBOR rates because of how the SOFR rate is calculated and the liquidity and depth of the underlying market transactions that determine the rate. Transactions underlying SOFR regularly exceed \$1 trillion in daily volumes, rendering the SOFR rate a transparent rate that is representative of the market across a broad range of market participants which provides protection against attempted manipulation.

¹⁸ See Bloomberg Technical Notice, available at https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation_Announcement_20210305.pdf

¹⁹ See Alternative Reference Rates Committee Press Release available at https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2021/ARRC_Press_Release_Endgame.pdf

²⁰ The FCA noted that “in the US dollar derivatives market, clearing houses are planning to transition cleared derivatives referencing US dollar LIBOR before end-June 2023”, see <https://www.fca.org.uk/publication/consultation/cp22-11.pdf>

²¹ CME undertook a public consultation on the proposals for the USD LIBOR Transition in Summer 2022, as well as direct engagement with market participants and Clearing Member firms. In August 2022 CME shared the final public details of the proposals to effect an “early” and “CCP-led” transition away from USD LIBOR ahead of the Index Cessation Effective Date: see <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>.

²² Details of the ARRC Paced Transition Plan for SOFR are available at <https://www.newyorkfed.org/arrc/sofr-transition#pacedtransition>.

Global regulatory authorities continue to encourage market participants with exposure to USD LIBOR to implement contractual fallback arrangements to ensure an orderly transition away from USD LIBOR and to minimize any risk of market disruption ahead of the Scheduled Final Representative USD LIBOR Publication Date.²³

Since its first publication in April 2018, use of SOFR has grown significantly for a wide range of financial products, from loans and commercial paper to interest rate swaps and exchange traded futures contracts. CME has supported the key milestones of the ARRC's Paced Transition Plan, launching the SOFR Futures contract in May 2018, OTC SOFR swaps in October 2018 and Options on SOFR Futures in January 2020. Trading and open interest in CME SOFR derivative products has grown rapidly since launch, and particularly during 2022, such that CME SOFR Futures are now the leading source of SOFR price discovery.

SOFR Swaps are widely traded and cleared. As at year to date ending December 2, 2022, global SOFR IRS traded notional (including basis swaps) was USD 50.4 trillion (compared with the equivalent for USD LIBOR Swaps of USD 51.3 trillion). In the week ending December 2, 2022, global SOFR IRS traded notional (excluding basis swaps) was nearly USD 1.3 trillion for the previous week (compared with the equivalent for USD LIBOR of USD 750 billion).²⁴ CME supports clearing of SOFR IRS and CME also lists SOFR Futures on the CME designated contract market.²⁵

SOFR is an overnight rate only based on the funding cost of overnight transactions secured by US Treasury securities.

Contractual Fallbacks in Bilateral Uncleared Markets

The majority of bilateral uncleared OTC derivatives transactions referencing USD LIBOR now incorporate contractual fallbacks contained within the ISDA IBOR Fallbacks Supplement or ISDA IBOR Fallbacks Protocol (which became effective in January 2021) or incorporate the equivalent contractual fallbacks contained within the 2021 ISDA Interest Rate Derivatives Definitions (the "2021 ISDA Definitions") (which became effective on October 4, 2021).²⁶ For these bilateral uncleared IRS contracts incorporating the ISDA contractual fallbacks the announcement by the FCA on March 5, 2021 constitutes an "Index Cessation Event" within the meaning of the relevant ISDA documentation, triggering the contractual fallbacks contained therein. The relevant ISDA contractual fallbacks operate in a way that causes affected IRS contracts to "fall back" to a "Fallback Rate" based on the nominated successor "risk-free" or "nearly risk-free" rate ("RFR") which is calculated and made publicly available by Bloomberg.²⁷ The relevant "Fallback

²³ See, for example, statements from the Federal Reserve at <https://www.federalreserve.gov/supervisionreg/libor-transition.htm> and the FCA at <https://www.fca.org.uk/markets/libor>.

²⁴ See IRS trade count and notional data published by ISDA at <http://analysis.swapsinfo.org/>

²⁵ Information on volume of CME cleared OTC SOFR Swaps are available at <https://www.cmegroup.com/education/cme-volume-oi-records.html>. Information on CME SOFR Futures, including contract specifications and trading and volume data, are available at <https://www.cmegroup.com/trading/interest-rates/secured-overnight-financing-rate-futures.html>.

²⁶ Details on the ISDA IBOR Fallbacks Supplement and the ISDA IBOR Fallbacks Protocol are available at: <https://www.isda.org/2020/10/23/isda-launches-ibor-fallbacks-supplement-and-protocol/>. ISDA publishes a list of parties that have adhered to the ISDA IBOR Fallbacks Protocol at <https://www.isda.org/protocol/isda-2020-ibor-fallbacks-protocol/adhering-parties>.

²⁷ The ISDA Spread Adjustment methodology is designed to reflect a portion of the structural differences between interbank offered rates, such as LIBOR, and the RFRs used for the fallbacks in the case of each LIBOR rate. For a high level overview, please see <https://www.isda.org/2021/03/05/libor-cessation-and-the-impact-on-fallbacks/>. IBORs such as LIBOR incorporate a credit risk premium and other factors, while RFRs are risk-free or nearly risk-free. Following the FCA Announcement, the relevant spread

Rate” replaces the relevant affected LIBOR rate in the contract and is in each case calculated by BISL according to the industry-agreed methodology published by ISDA (the “ISDA Fallback Pricing Methodology”)²⁸, based on the combination of the following components for each relevant tenor:

- Adjusted RFR: compounded setting in arrears RFR for each relevant term;²⁹
- ISDA Spread Adjustment: median of the historical differences between the relevant LIBOR rate for each tenor and the compounded RFR for that tenor over a five-year period prior to the relevant trigger event.³⁰

Under the relevant ISDA fallback provisions, in the case of USD LIBOR rates, in each case the relevant fallback will occur on the next London business day following either (i) the date of final publication of the relevant LIBOR rate or (ii) the date on which the relevant LIBOR rate ceases to be representative of the underlying market and economic reality it is intended to measure and that representativeness will not be

adjustment for USD LIBOR settings has been fixed and published by Bloomberg Index Services Limited (“BISL”) at: https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation_Announcement_20210305.pdf. BISL publishes a summary of the IBOR Fallbacks process on its website at <https://data.bloomberglp.com/professional/sites/10/IBOR-Fallbacks-Fact-Sheet.pdf>. BLOOMBERG is a trademark and service mark of Bloomberg Finance L.P. (“BFLP”). ISDA is a trademark and service mark of the International Swaps and Derivatives Association, Inc. (“ISDA”). LIBOR® and ICE LIBOR® are trademarks of ICE Benchmark Administration Limited and/or its affiliates (collectively, “ICE”) and are used with permission under licence by ICE. Bloomberg Index Services Limited (“BISL”) and, collectively with BFLP and their affiliates, “Bloomberg”) maintains and calculates the ‘fallback’ data comprising the ‘all in’ fallback rates and their component parts, the adjusted ‘risk-free’ reference rates and the spread adjustment (collectively with any other data or information relating thereto or contained therein, the “Fallback Rates Data”) under an engagement between BISL and ISDA. To the extent Bloomberg uses LIBOR in the determination of certain Fallback Rates Data, it does so under licence from ICE. None of Bloomberg, ISDA or, where applicable, ICE guarantees or makes any claim, prediction, warranty or representation whatsoever, express or implied, regarding the timeliness, accuracy, completeness of, or fitness for a particular purpose with respect to, the Fallback Rates Data and each shall have no liability in connection with the Fallback Rates Data. Without limiting the foregoing, to the fullest extent permitted by applicable law, none of Bloomberg, ISDA or, where applicable, ICE will be liable in contract or tort (including negligence), for breach of statutory duty or nuisance, or under antitrust laws, for misrepresentation or otherwise, in respect of any inaccuracies, errors, omissions, delays, failures, cessations or changes (material or otherwise) in the Fallback Rates Data, or for any damage, expense or other loss (whether direct or indirect) suffered by any person arising out of or in connection with the Fallback Rates Data or any reliance placed upon it by any person, and all implied terms, conditions and warranties, including, without limitation, as to quality, merchantability, fitness for purpose, title or non-infringement, in relation to the Fallback Rates Data, are hereby excluded. None of Bloomberg, ISDA or, where applicable, ICE makes any representations regarding whether the Fallback Rates Data would be appropriate for derivative or non-derivative financial instruments, including derivatives transacted outside of standard ISDA documentation and related protocols. Market participants are encouraged to consider and analyze the details of the Fallback Rates Data and determine independently whether they would be appropriate for any such use.

²⁸ BISL and its affiliates was selected by ISDA as the vendor to calculate and distribute the RFR adjustments determined in accordance with the ISDA Fallback Pricing Methodology. BISL calculates and publishes the Adjusted RFR according to the prescribed ISDA methodology, as set out in the IBOR Fallback Rate and Adjustments Rule Book published by BISL at <https://data.bloomberglp.com/professional/sites/10/IBOR-Fallback-Rate-Adjustments-Rule-Book.pdf>.

²⁹ To determine the Adjusted RFR, the underlying RFR is compounded over an accrual period corresponding to the tenor of the relevant LIBOR. The start of the accrual period is determined firstly by following the market convention Reference Spot Lag, and then applying a two business day backward shift, of Offset Lag. The compounded rate is annualized, and the day count convention is adjusted to match that of the relevant LIBOR. See: <https://data.bloomberglp.com/professional/sites/10/IBOR-Fallbacks-Fact-Sheet.pdf>. For the purposes of application of the ISDA Fallback Pricing Methodology as a component of the Conversion processes, CME will calculate the adjusted RFR utilizing the ISDA methodology, as published by BISL.

³⁰ BISL calculates and publishes the ISDA Spread Adjustment according to the prescribed ISDA methodology, described in summary at <https://data.bloomberglp.com/professional/sites/10/IBOR-Fallbacks-Fact-Sheet.pdf>. The ISDA Spread Adjustment figures are available at https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation_Announcement_20210305.pdf.

restored, as applicable (the “Index Cessation Effective Date” within the meaning of the ISDA documentation).³¹

As the nominated RFR successor to USD LIBOR, spread adjusted SOFR will be the Fallback Rate for bilateral uncleared derivative contracts under ISDA contractual fallbacks. BISL has published the ISDA Spread Adjustment for USD LIBOR settings following the FCA Announcement on March 5, 2021.³² As a result, following the FCA Announcement and in the absence of a subsequent announcement by the FCA or IBA, under the ISDA fallbacks swaps referencing all remaining USD LIBOR settings will transition to the relevant term and spread adjusted SOFR rate (incorporating the relevant ISDA Spread Adjustment) on July 3, 2023.

Contractual Fallbacks under CME Rules and Market Participant-Driven Solution for Cleared Markets

During the course of 2021 CME incorporated into the CME Rules certain contractual fallback language based on the ISDA fallback provisions:

- in January 2021, by way of Clearing Advisory [21-039](#), CME confirmed the incorporation into the CME Rules of certain interbank offered rate (“IBOR”) contractual fallback provisions set out in the ISDA IBOR Fallbacks Supplement, which provided that on an “Index Cessation Effective Date”, affected contracts would fall back to the relevant Fallback Rate published by BISL calculated according to the ISDA Fallback Pricing Methodology based on the nominated RFR, incorporating the required term adjustments and the relevant ISDA Spread Adjustment;³³
- in October 2021, concurrently with the implementation by ISDA of the 2021 ISDA Definitions, by way of amendment to the CME Rules and as set out in Clearing Advisory [21-335](#), CME revoked Clearing Advisory 21-039 and confirmed the incorporation into the CME Rules of the contractual fallback triggers and fallback provisions contained within the 2021 ISDA Definitions, replacing those substantially equivalent provisions contained in the ISDA IBOR Fallbacks Supplement and subsequent additional supplements by ISDA.³⁴

³¹ July 3, 2023, is the “Index Cessation Effective Date” for all remaining USD LIBOR settings within the meaning of the 2021 ISDA Definitions (and the relevant ISDA IBOR Fallbacks Supplement, being the first London business day, and therefore the first date on which those LIBOR rates would ordinarily have been published, following June 30, 2023.

³² The relevant information on the ISDA Spread Adjustment for USD LIBOR settings published by BISL under the ISDA methodology is available at: <https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation-Announcement-20210305.pdf>

³³ CME Clearing Advisory 21-039 is available at:

<https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2021/01/Chadv21-039.pdf>.

³⁴ CME Rule 90102.H. (Application of Permanent Cessation Fallbacks) confirms the application of the Permanent Cessation Fallback provisions in the 2021 Definitions to CME cleared trades. Rule 90102.H. is expressed to be subject to the other chapters of or provisions of or made under the CME Rules and subject to and without prejudice to any specific actions that are determined by the Clearing House in its sole and absolute discretion to be necessary on the occurrence of a Permanent Cessation Trigger with respect to any Floating Rate Option referenced under an IRS Contract, each as defined in the 2021 ISDA Definitions. As set out in Clearing Advisory [21-335](#) and [CME Submission No. 21-431](#), Rule 90102.H. therefore does not limit CME’s ability to take alternative action in relation to circumstances that constitute a Permanent Cessation Fallback, for example and without limitation, to participate in a CCP-led transition away from a particular reference rate subject to a Permanent Cessation Fallback ahead of a transition date required under the 2021 Definitions. CME is able to exercise its discretion not to apply the “Permanent Cessation Fallbacks” from the ISDA 2021 Definitions incorporated into the CME Rules. In the case of the scheduled loss of “representativeness” of USD LIBOR rates, in response to market participant feedback, CME does not propose to apply the “Permanent Cessation Fallbacks” within the ISDA 2021 Definitions and CME Rule 90102.H to USD LIBOR Swaps cleared by CME. Instead, based on consultations with market participants and consistent with broader cleared industry initiatives and its approach to the Non-USD LIBOR Transition in December 2021, CME

Within the meaning of the CME Rules, the announcement by the FCA on March 5, 2021, constitutes a “Permanent Cessation Trigger” in respect of USD LIBOR rates. Pursuant to CME Rule 90102.H. (“Application of Permanent Cessation Fallbacks”), the CME Rules provide that the Clearing House would, subject to other actions permitted by the CME Rules, apply the relevant Permanent Cessation Fallback provisions set out in the ISDA 2021 Definitions from the relevant “Index Cessation Effective Date” in respect of affected CME cleared USD LIBOR IRS contracts³⁵, with the effect that from the “Index Cessation Effective Date” the relevant CME cleared USD LIBOR Swaps would fall back to the relevant Fallback Rate published by BISL, based on the adjusted SOFR rate incorporating the relevant ISDA Spread Adjustment.

However, following extensive market participant consultation during the course of 2022³⁶, and following the successful CCP-led conversion of non-USD LIBOR IRS in December 2021, the overwhelming majority of market participant feedback has requested that CME (and other CCPs clearing USD LIBOR IRS) should not follow the bilateral uncleared market process for the transition away from USD LIBOR rates. The industry consensus communicated to CME by market participants indicates that the significant majority of cleared market participants prefer an “early” and “CCP-led” transition of cleared USD LIBOR Swaps to the respective successor standardized cleared SOFR OIS. Market participants communicated to CME their widely held concerns around a significant drawback of the bilateral uncleared market approach to contractual fallbacks, namely that the mere substitution of the adjusted SOFR for the USD LIBOR rate under a swap contract subject to a fallback event creates a misalignment between (i) the terms of the resulting post-fallback swap referencing the SOFR Fallback Rate and (ii) the terms of standardized OIS referencing SOFR.³⁷ Given these fundamental differences in contractual terms between the post-fallback swaps and standardized SOFR swaps, these swaps could not be treated as fungible with one another. In turn, the lack of fungibility between the resulting post-fallback SOFR swaps and standardized SOFR OIS could give rise to problems for market participants that wish to close out or hedge a position in the resulting post-fallback swaps given that the available liquidity in the post-fallback SOFR swaps would be expected to be significantly less than for standardized SOFR OIS. As a result, participants have raised concerns that entities wishing to unwind non-standardized SOFR swap contracts arising from contractual fallbacks would need to execute and book additional non-standard swaps in an uncertain liquidity environment.

In order to attempt to avoid these circumstances arising in relation to USD LIBOR swaps in cleared markets, market participants have recommended that CCPs should not seek to implement contractual fallbacks designed to align with fallback provisions applicable to these swaps in bilateral uncleared markets. Market participant feedback has instead recommended a CCP-led approach to the transition of cleared USD

proposes to effect the conversion of USD LIBOR Swaps into corresponding standardized SOFR OIS on the relevant Conversion Dates. As a result, the amendments to the terms of the CME Rules set out in the Clearing Advisory in respect of the USD LIBOR Conversion effectively disapply the Permanent Cessation Fallbacks set out in CME Rule 90102.H. for the purposes of the USD LIBOR Transition, in a similar manner to the approach adopted by CME for the Non-USD LIBOR Transition in December 2021.

³⁵ Note that forward rate agreements referencing USD LIBOR (“FRAs”) are excluded from the scope of the USD LIBOR Conversion. CME has ceased clearing USD LIBOR FRAs with effective dates after June 30, 2023, removing FRAs from the conversion scope. USD LIBOR FRAs with effective dates on or prior to this date remain eligible for clearing.

³⁶ During the course of 2022, as part of ongoing discussions with market participants on this issue and following the successful transition of CHF, GBP and JPY LIBOR swaps in December 2021, CME has shared public details of the proposals to effect an “early” and “CCP-led” transition away from USD LIBOR ahead of the Index Cessation Effective Date: see <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>.

³⁷ See ISDA User Guide to IBOR Fallbacks and RFRs: “It is important to note that the IBOR fallbacks do not work in precisely the same way as a standard OIS. For example, the IBOR fallbacks are based on a two-business-day backward shifted compounded RFR with a spread adjustment, whereas a standard OIS will typically apply a payment delay and will not apply the same spread adjustment. Therefore, counterparties may want to bilaterally amend IBOR-referencing derivatives transactions, even once the new fallbacks apply, in order to match current OIS conventions.” See <https://assets.isda.org/media/3062e7b4/c133e67f-pdf/>.

LIBOR swaps, similar to that adopted by CME and other CCPs for the Non-USD LIBOR Transition in December 2021, under which CCPs would “convert” cleared USD LIBOR swaps into standardized SOFR referencing SOFR OIS, accounting for the ISDA Spread Adjustment on the floating leg on the replacement SOFR referencing swap, to take place ahead of the Index Cessation Effective Date in respect of USD LIBOR.³⁸

As with the Non-USD LIBOR Conversion in 2021, discussions regarding CCP-led transition for LIBOR swaps, market participants have informed CME that the CCP-led conversion of USD LIBOR swap exposures into market standard SOFR swaps benefits the marketplace by:

- creating a single transparent liquidity pool for trading standardized SOFR swaps;
- providing participants with certainty that “legacy” and “new” contracts would be fungible with one another upon transition to SOFR; and
- supporting market standard SOFR OIS that is, in turn, widely supported by market participants and market infrastructure, thereby removing the need to apply the ISDA IBOR fallbacks protocols which market participants have identified as operationally challenging, specifically “Observation Period Shift” where both the rate and the weighting are determined on the basis of the relevant day of the ‘observation period’, rather than the weighting being determined based on the relevant day in the Calculation Period.

In response to this market participant feedback, CME has therefore determined that it will not implement the “Permanent Cessation Fallbacks” anticipated by CME Rule 90102.H. for USD LIBOR on the “Index Cessation Effective Date” as set out in the CME Rulebook and proposes instead that, subject to regulatory review, CME will implement the USD LIBOR Transition, as summarized below.

2. Basis Swap Conversion

Background to the Conversion of Basis Swaps to Fixed-Float IRS Ahead of USD LIBOR Transition

Following engagement with market participants, CME has determined that it is necessary and beneficial to convert or “split” each USD LIBOR Basis Swap (with the exception of USD LIBOR vs Fed Funds Basis Swaps³⁹) into corresponding pairs of fixed-float IRS referencing the USD LIBOR rate as a preliminary process ahead of the proposed USD LIBOR Conversion scheduled for April 21, 2023. The purpose of this preliminary process in the USD LIBOR Transition is to avoid the conversion of USD LIBOR Basis Swaps into SOFR-SOFR Basis Swaps (which, without this splitting exercise, would take place on USD LIBOR Conversion) which is operationally and technically difficult for the marketplace to support. Also, resulting

³⁸ As noted above, in the FCA’s September 2021 announcement and consultation regarding the transition away from “unrepresentative” LIBOR settings, the FCA acknowledged that major CCPs will transition cleared LIBOR derivatives away from the relevant rates before the rates become “non-representative” or before restrictions on usage come into effect. In June 2022, the FCA further welcomed the approach of CME and other major CCPs to undertake a CCP-led conversion of USD LIBOR swaps ahead of the Index Cessation Effective Date.

³⁹ USD LIBOR vs Fed Funds Basis Swaps are excluded from the Basis Swap Conversion because they will be included in the USD LIBOR Conversion. During the USD LIBOR Conversion, USD LIBOR vs Fed Funds Basis Swaps will be converted into SOFR vs Fed Funds basis swaps which feature two independent floating rate indexes that will continue to be traded by the marketplace. As a result, it is not necessary to include them in the Basis Swap Conversion.

SOFR-SOFR Basis Swaps will not be fungible with standard SOFR overnight index swaps, making them relatively illiquid which, in turn, would create challenges for market participants in managing them in the event of a default. As a result, CME proposes to follow the approach utilised for the Non-USD LIBOR Conversion and to undertake the Basis Swap Conversion ahead of the USD LIBOR Conversion.

The methodology for the Basis Swap Conversion is substantively similar to the equivalent conversion effected by CME in September 2021 in relation to basis swaps referencing GBP and JPY LIBOR, prior to the Non-USD LIBOR Conversion. Under this process CME effected the successful conversion of GBP and JPY denominated interest rate basis swap products into corresponding CME cleared fixed-float interest rate swaps, ahead of the Non-USD LIBOR Conversion.⁴⁰

Summary of Proposed CME Conversion of Basis Swaps

Subject to regulatory review, at or shortly after close of business on the Basis Swap Conversion Date, with the exception of Basis Swaps that mature on the Basis Swap Conversion Date, CME will convert each CME cleared Basis Swap that is open at close of business on the Basis Swap Conversion Date by splitting each Basis Swap into corresponding pairs of CME cleared fixed-float interest rate swaps, as follows:

- In respect of each Basis Swap (a “Pre-Conversion Basis Swap”), CME will close out the Pre-Conversion Basis Swap and establish in the account of the position holder of such Pre-Conversion Basis Swap the following replacement CME cleared IRS trades (corresponding to the relevant Floating Rate Index of the Pre-Conversion Basis Swap) as per the direction of the Pre-Conversion Basis Swap:
 - a fixed-float interest rate swap, with Direction Pay Fixed, with a Floating Index Tenor corresponding to the Floating Rate Index 1 corresponding to receive leg of the Pre-Conversion Basis Swap; and
 - a fixed-float interest rate swap, with Direction Receive Fixed, with a Floating Index Tenor corresponding to the Floating Rate Index 2 corresponding to pay leg of the Pre-Conversion Basis Swap

(each, a “Replacement Swap” and together, a “Replacement Basis Swap Pair”).

- The Currency, Notional, Effective Date, Maturity Date, Day Count, Date Roll, Payment Calendar and Floating Leg Spread of each Replacement Swap (as applicable) will be the same as that of the relevant Pre-Conversion Basis Swap.
- The Fixed Rate for each Replacement Swap in a Replacement Basis Swap Pair will be determined by CME and shall be equal to the “break-even” rate of the “larger” index tenor for the Pre-Conversion Basis Swap, e.g. 6 months for a 3 month vs. 6 month Basis Swap. The Fixed Rate determined by CME for each Replacement Swap will ensure that payments under each Replacement Swap will fully offset the payments of the other Replacement Swap in that Replacement Swap Pair.
- Each Replacement Basis Swap Pair will retain the key economic terms of the corresponding Pre-Conversion Basis Swap. The combined Net Present Value (“NPV”) of each Replacement Basis

⁴⁰ For further details, see CME Submission 21-412, accessible at <https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2021/9/21-412.pdf>

Swap Pair will be equal to that of the corresponding Pre-Conversion Basis Swap prior to close out. As a result, the Basis Swap Conversion will not result in any change in risk exposure for a position holder of a Pre-Conversion Basis Swap and, therefore, no risk or cash compensation is required for position holders.

- Each Replacement Swap will be cleared by CME as an interest rate swap subject to the terms of the CME Rules.
- CME will report the close out of each Pre-Conversion Basis Swap and the establishment of each Replacement Swap in the account of the relevant position holder to the CME Swap Data Repository (“SDR”) under Part 45 of the CFTC’s Regulations, as described below.

The Basis Swap Conversion is a mandatory process and will apply to all cleared trades in USD LIBOR basis swaps on the Basis Swap Conversion Date, except USD LIBOR vs Fed Funds basis swaps and those Basis Swaps that mature on or prior to the Basis Swap Conversion Date.

From close of business on the Basis Swap Conversion Date, CME will cease to accept USD LIBOR Basis Swaps for clearing.

Amendment to Basis Swap Conversion Date in Limited Circumstances

CME will reserve the right to amend the proposed Basis Swap Conversion Date in its sole and absolute discretion prior to the Basis Swap Conversion in limited circumstances, for example, where implementation of the conversion process on the previously communicated date could, in the opinion of the Clearing House, result in an unacceptable level of operational or market disruption or where financial stability issues could threaten the orderly transition. In such circumstances, CME would communicate the amended Basis Swap Conversion Date to market participants as soon as practicable upon making such determination.⁴¹

Legal and Operational Characterization; Messaging and Reporting to SDR

In legal and contractual terms, the Basis Swap Conversion process will amend the terms of cleared trades in CME cleared USD LIBOR Basis Swaps, resulting in the establishment of replacement cleared trades in the form of the Replacement Swaps. From an operational perspective within the CME clearing system, the Basis Swap Conversion will be processed by CME as a termination of each relevant Pre-Conversion Basis Swap and the establishment of a new corresponding pair of cleared trades within the clearing system in the form of the relevant Replacement Swaps.

To reflect the operational processes within the clearing system, CME will send:

- a termination message to relevant CME Clearing Members in respect of the termination of each relevant Pre-Conversion Basis Swap; and
- a clearing confirmation message to relevant CME Clearing Members in respect of the establishment of each new relevant Replacement Swap.

As part of the Basis Swap Conversion process, all relevant Trade IDs on the Pre-Conversion Basis Swap will be carried over to the relevant Replacement Swaps. In order to identify the link between each Pre-

⁴¹ CME Clearing has identified a provisional contingency fallback date of April 14, 2023, in the event March 24, 2023 is determined to be unsuitable as the date of Basis Swap Conversion.

Conversion Basis Swap and the relevant Replacement Swaps, CME will add a replacement Trade ID and Original Trade ID respectively in the History section of the clearing confirmation messages.

CME will report the result of the Basis Swap Conversion to CME SDR in accordance with the requirements of the CFTC's Part 45 Regulations, to reflect the splitting of each Pre-Conversion Basis Swap into each Replacement Basis Swap Pair. With regard to reporting data submitted to SDR in respect of each Replacement Swap, CME will populate the "Prior USI" field with the Unique Swap Identifier ("USI") of the relevant Pre-Conversion Basis Swap to reflect the nature of the Basis Swap Conversion process. For SDR reporting purposes, reporting rows will be generated and submitted to CME SDR terminating the USI of each Pre-Conversion Basis Swap and CME will ensure that each Replacement Swap will be reported as a "New Trade."

Withdrawal of Clearing Support for USD LIBOR Basis Swaps Following Basis Swap Conversion

From close of business on the Basis Swap Conversion Date, the Clearing House will cease to accept for clearing trades in USD LIBOR Basis Swaps (with the exception of USD LIBOR vs Fed Funds basis swaps, which shall continue to be accepted for clearing until the Secondary Conversion Date)⁴².

Fees for Basis Swap Conversion Process

There are no Exchange fees payable in respect of the Basis Swap Conversion.

3. USD LIBOR Conversion

Background to the Conversion of CME cleared USD LIBOR Swaps as part of USD LIBOR Transition

As noted above, following the FCA Announcement in March 2021, immediately following the Scheduled Final Representative USD LIBOR Publication Date on June 30, 2023, each remaining setting of USD LIBOR will cease to be published in a manner that is "representative" of the underlying market and economic reality it is intended to measure and that representativeness will not be restored, notwithstanding that a "synthetic" USD LIBOR rate may continue to be published for certain settings after that date for a limited period.⁴³ In response to market participant feedback following extensive engagement during 2022, CME proposes to implement amended fallback rules for USD LIBOR IRS cleared by CME in order to transition CME cleared trades in USD LIBOR Swaps away from the USD LIBOR rate prior to the Scheduled Final Representative USD LIBOR Publication Date, commencing on the Primary Conversion Date following close of business on April 21, 2023.

⁴² Basis Swaps in scope for the Basis Swap Conversion are USD LIBOR vs SOFR and USD LIBOR vs USD LIBOR. USD LIBOR vs Fed Funds basis swaps will continue to be accepted or clearing until the Primary Conversion Date and will not be subject to the Basis Swap Conversion. USD LIBOR vs Fed Funds Basis Swaps will be subject to the Primary Conversion process scheduled to take place on April 21, 2023, discussed further below.

⁴³ As noted above, in November 2022, the FCA confirmed that "while in our view synthetic LIBOR settings are a fair and reasonable approximation of what LIBOR might have been had it continued to exist, they are not representative of the markets that the original LIBOR settings were intended to measure." See <https://www.fca.org.uk/publication/consultation/cp22-21.pdf>.

Based on this extensive engagement with market participants, CME's methodology for the USD LIBOR Transition is substantively similar⁴⁴ to the Non-USD LIBOR Conversion effected by CME in December 2021 under which CME effected the successful conversion of cleared GBP, JPY and CHF LIBOR OTC IRS into CME cleared OIS referencing the relevant nominated successor RFR in each case ahead of the scheduled date of cessation / non-representativeness of such LIBOR rates following publication on December 31, 2021.⁴⁵

Summary of Proposed Conversion of CME cleared USD LIBOR Swaps

Subject to regulatory review, CME proposes to transition CME cleared USD LIBOR Swaps by converting such contracts to reference SOFR on the relevant Conversion Date determined by CME (and from the Secondary Conversion Date, on a daily basis for a limited category of contracts), utilizing a mandatory conversion process and the relevant methodology determined by CME, as summarized below:

⁴⁴ As noted above, the only material difference between the Non-USD LIBOR Conversion process and the proposed methodology for the USD LIBOR Transition is that, as part of the Non-USD LIBOR swap conversion, the CME conversion process restated the original Non-USD LIBOR swap via booking a forward starting RFR Swap with an upfront fee to capture any representative LIBOR settings that settled after the Index Cessation Effective Date. Under the new methodology for USD LIBOR swaps, in the case of seasoned swaps, CME will be replacing the original USD LIBOR Swap with two swaps: 1) The same forward starting RFR (SOFR) Swap excluding the upfront fee, and 2) A short-dated USD LIBOR swap for any representative USD LIBOR fixings that settle after the Index Cessation Effective Date. Please note from a cashflow and risk perspective this is unchanged from the prior methodology for the Non-USD LIBOR Conversion. Although this methodology will result in an increased number of line items and notional outstanding, it will assist hedge accounting clients to capture the proper accrual amounts. Additionally, CME believes the increased number of line items and notional amounts can be significantly reduced through a well-timed compression run.

⁴⁵ Ahead of the Non-USD LIBOR Conversion, CME effected a conversion of GBP and JPY denominated interest rate basis swap products in September 2021, converting each CME cleared affected basis swap contract into corresponding CME cleared fixed-floating interest rate swaps- see <https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2021/9/21-412.pdf> The Non-USD LIBOR Conversion commenced in December 2021 ahead of the scheduled cessation / non-representativeness of certain non-USD LIBOR rates following publication on December 31, 2021. See CME Submission 21-515, accessible at <https://www.cftc.gov/sites/default/files/filings/orgrules/21/11/rule111821cmecdo001.pdf>.

Date	Conversion Date	CME cleared swaps subject to Conversion on date	Output of Conversion
April 21, 2023	Primary Conversion Date	USD LIBOR vs Fed Funds Basis Swap	SOFR vs Fed Funds Basis Swap Short-Dated USD LIBOR vs Fed Funds Basis Swap
		USD LIBOR IRS with a maturity date after the Primary Conversion Date* *Excluding: <ul style="list-style-type: none"> • Zero Coupon Swaps; and • USD LIBOR IRS where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date, but which do not settle prior to the Scheduled Final Representative USD LIBOR Publication Date 	For Seasoned Swaps: <ul style="list-style-type: none"> • Short-dated USD LIBOR Swap accounting for all remaining unsettled representative USD LIBOR fixings in respect of the original USD LIBOR Swap; and • Forward Starting SOFR OIS with start date of the maturity date of Short-Dated USD LIBOR Swap
			For Forward Starting Swaps: Forward Starting SOFR OIS with effective/maturity dates of original USD LIBOR Swap
July 3, 2023	Secondary Conversion Date	Zero Coupon USD LIBOR IRS	For Seasoned Swaps: Forward Starting SOFR OIS <ul style="list-style-type: none"> • Representative LIBOR fixings and compounded floating legs accounted for • Payment at maturity retained for floating and fixed leg • 2-day payment offset applied to coupon • Adjusted “known amount” on fixed leg • Adjusted notional to account for previous compounding periods
			For Forward Starting Swaps: Forward Starting SOFR OIS with payment at maturity
		USD LIBOR IRS and USD LIBOR vs Fed Funds Basis Swap submitted for clearing after COB on the Primary Conversion Date and before COB on the Secondary Conversion Date	As for Primary Conversion
		USD LIBOR IRS that result from exercise of bilateral swaptions submitted for clearing after the Primary Conversion Date and before the Secondary Conversion Date	As for Primary Conversion
Daily basis after Secondary Conversion Date	Ongoing Conversion on the date of acceptance for clearing by CME	USD LIBOR IRS that are spot or forward starting with a start date after COB on the Secondary Conversion Date, in order to support clearing and conversion of swaps that result from exercise of bilateral swaptions	As for Secondary Conversion

Conversion Processes - Adjustment Methodology

CME has published its detailed methodology for the Conversion processes, including worked examples, provided as Exhibit 4 to this Submission.⁴⁶ The relevant methodology is summarized below:

- each resulting CME cleared SOFR OIS arising from the Conversion process (each, a “Forward Starting SOFR OIS”) will account for the ISDA Spread Adjustment on the floating leg of the SOFR OIS swap, retaining the key economic terms of the original trade, subject to certain adjustments described below and determined by CME according to its published methodology;
- each resulting CME cleared short-dated USD LIBOR Swap arising from the Conversion process (each, a “Short-Dated USD LIBOR Swap”) is designed to account for any known representative USD LIBOR rate coupons that will be unpaid on the Index Cessation Effective Date, restating these accrual periods as Short-Dated USD LIBOR Swaps which will have economic terms as determined by CME according to its published methodology;
- in order to neutralize the value transfer from the Conversion of the economic position of each original USD LIBOR Swap into each relevant Forward Starting SOFR OIS, CME will calculate a cash adjustment amount that will be based on the difference between the net present value (“NPV”) of the original USD LIBOR Swap and the combined NPV of the Forward Starting SOFR OIS and any Short-Dated USD LIBOR Swap on the relevant Conversion Date. The Cash Adjustment for each Forward Starting SOFR OIS will be equal and opposite to the change in NPV calculated by CME, and therefore may be a positive or negative amount depending on the position (the “Cash Adjustment”).⁴⁷ The Cash Adjustment amount will be applied by CME in the form of upfront “fees” on each resulting cleared Forward Starting SOFR OIS on the relevant Conversion Date;
- cash flows relating to the Cash Adjustment will be applied in the next end of day clearing cycle following the relevant Conversion Date;
- the Cash Adjustment will ensure that the NPV change for position holders impacted by the Conversion will be neutralized;
- in each case, any Forward Starting SOFR OIS will be cleared as a CME cleared SOFR OIS (referencing the USD-SOFR-OIS Compound Floating Rate Option) and any Short-Dated USD LIBOR Swap will be cleared as a USD LIBOR Swap.

Primary Conversion Date – Conversion Processes

A: USD LIBOR IRS excluded from Primary Conversion

⁴⁶ See <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>.

⁴⁷ Where the holder of a Forward Starting SOFR OIS had benefited from a change in NPV, an upfront fee equal and opposite to that amount of change in NPV would be applied to that Forward Starting SOFR OIS and such amount would be due from the position holder at the next clearing cycle. Where the holder of a Forward Starting SOFR OIS experiences a negative change in NPV, an upfront fee equal and opposite to that amount of change in NPV would be applied to the Forward Starting SOFR OIS and such amount would be due to the position holder at the next clearing cycle. The net cash flow position for all participants is neutral. The net cash flow position for the Clearing House is neutral.

The following CME cleared USD LIBOR IRS open on the Primary Conversion Date are excluded from the conversion process on the Primary Conversion Date:

- (i) USD LIBOR Swaps that mature on the Primary Conversion Date;
- (ii) USD LIBOR IRS where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date, but which do not settle prior to the Scheduled Final Representative USD LIBOR Publication Date; and
- (iii) Zero Coupon USD LIBOR Swaps.

B: Conversion of Seasoned USD LIBOR Swaps on the Primary Conversion Date

CME will convert each CME cleared USD LIBOR Swap open on the Primary Conversion Date that is not a Forward Starting Swap (each, a “Seasoned Swap”) into:

- (i) a corresponding standardized Forward Starting SOFR OIS, retaining the key economic terms of the original USD LIBOR Swap trade; and
- (ii) a Short-Dated USD LIBOR Swap accounting for all representative USD LIBOR fixings in respect of the original USD LIBOR Swap that are unpaid and settle after the Primary Conversion Date,

in each case subject to certain adjustments determined by CME described above (in Adjustment Methodology), including the Cash Adjustment which shall be applied to each Forward Starting SOFR OIS, and applied according to its published methodology set out in Exhibit 4.

If the original Seasoned USD LIBOR Swap has a single representative LIBOR fixing that has not been paid/settled prior to the Index Cessation Effective Date:

- the resulting Short-Dated USD LIBOR Swap will be a single period Fixed – LIBOR swap that settles the coupon payments; and
- the Forward Starting SOFR OIS start date will be the maturity date of the Short Dated USD LIBOR Swap.

If the original Seasoned USD LIBOR Swap has multiple representative LIBOR fixings that have not been paid/settled prior to the Index Cessation Effective Date:

- the resulting Short-Dated USD LIBOR Swap will be a multiple period Fixed-LIBOR swap that settles the coupon payments; and
- the Forward Starting SOFR OIS start date will be the maturity date of the Short-Dated USD LIBOR Swap.

C: Conversion of Forward Starting USD LIBOR Swaps with an effective date after the Index Cessation Effective Date on the Primary Conversion Date

CME will convert each CME cleared USD LIBOR Swap that is a Forward Starting Swap and is open on the Primary Conversion Date into:

- a corresponding standardized Forward Starting SOFR OIS, retaining the key economic terms of the original USD LIBOR Swap trade,

in each case subject to certain adjustments determined by CME described above (in Adjustment Methodology), including the Cash Adjustment which shall be applied to each Forward Starting SOFR OIS, and applied according to its published methodology set out in Exhibit 4.

Each resulting Forward Starting SOFR OIS will:

- maintain the effective/maturity dates and fixed leg economic terms (excluding pay offset) of the original USD LIBOR Swap;
- include a payment offset (2D) added to both legs of the swap, consistent with market standard OIS conventions;
- include a single compensating upfront fee (the Cash Adjustment) to be paid the following New York business day.

D: Conversion of USD LIBOR – Fed Funds Basis Swaps on the Primary Conversion Date

On the Primary Conversion Date, CME will convert each cleared trade in USD LIBOR – Fed Funds Basis Swaps into:

- a corresponding SOFR vs Fed Funds Basis Swap; and
- a Short-Dated LIBOR vs Fed Funds Basis Swap

in each case subject to certain adjustments determined by CME described above, including the Cash Adjustment which shall be applied to the corresponding SOFR vs Fed Funds Basis Swap, and applied according to its published methodology set out in Exhibit 4.

In each case, the Fed Funds leg will continue to use averaging and a rate cut-off and the SOFR leg will use compounding and a payment offset.

E: Conversion of Compounding Swaps

For compounding USD LIBOR Swaps, CME will respect the representative LIBOR fixings of any seasoned compounding swaps:

- if the compounding USD LIBOR Swap is Forward Starting, with an effective date after the Index Cessation Date, then the swap will be converted into only a Forward Starting SOFR OIS with the original payment frequencies on both legs. The Cash Adjustment shall be applied to the Forward Starting SOFR OIS;
- for any other cases:
 - CME will book a Short-Dated USD LIBOR Swap to settle the representative LIBOR floating and fixed accruals;
 - the resulting Forward Starting SOFR OIS will be effective at the end of the next floating coupon period and the daily compounded rate will be applied to all future floating periods;
 - Fixed and float cash flows on the Short-Dated USD LIBOR Swap may not match the original USD LIBOR Swap.

F: Conversion approach to Swap Stub Periods

Stubs require special processing when converting USD LIBOR Swaps into Short-Dated USD LIBOR Swaps as there are different methods used to specify the original Floating Rate Option. CME's methodology requires that all current stub periods will be restated as a USD LIBOR Zero Coupon Swap.

Forward starting stub periods will maintain the period start and end dates with a daily compounded overnight rate.

Secondary Conversion Date – Conversion Processes

A: USD LIBOR IRS excluded from Secondary Conversion

The following CME cleared USD LIBOR IRS open on the Secondary Conversion Date are excluded from the conversion process on the Secondary Conversion Date:

- (i) USD LIBOR Swaps that mature on the Secondary Conversion Date;
- (ii) USD LIBOR IRS where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date, but which do not settle prior to the Scheduled Final Representative USD LIBOR Publication Date;
- (iii) Short-Dated LIBOR vs Fed Funds Basis Swaps arising from the Primary Conversion; and
- (iv) Short-Dated USD LIBOR Swaps arising from the Primary Conversion.

B: Conversion of USD LIBOR Swaps submitted prior to the Secondary Conversion Date

With respect to any USD LIBOR Swap submitted for clearing after COB on the Primary Conversion Date but before COB on the Secondary Conversion Date (including Swaps that result from the exercise of a bilateral (uncleared) Swaption contract exercise and USD LIBOR – Fed Funds Basis Swaps), at close of business on the Secondary Conversion Date CME will convert such USD LIBOR Swaps utilizing the applicable process applied by CME to relevant USD LIBOR Swaps on the Primary Conversion Date, as described above.

C: Conversion of Zero Coupon Swaps on the Secondary Conversion Date

CME will convert each CME cleared USD LIBOR Zero Coupon Swap open on the Secondary Conversion Date as follows:

- Forward starting Zero Coupon Swaps will be converted into a single Forward Starting SOFR OIS with payment at maturity;
- Seasoned Zero Coupon Swaps have representative USD LIBOR fixings and compounded floating legs that need to be accounted for in the replacement Forward Starting SOFR OIS:
 - CME will keep the payment at maturity for both the floating and fixed leg (if applicable). A 2-day payment offset is applied to both coupon payments to stay consistent with standard SOFR OIS conventions.

- any accrued interest from past and current representative USD LIBOR periods is settled at maturity by adjusting the “known amount” on the fixed leg
- the replacement Forward Starting SOFR OIS will have adjusted notional to account for the previous compounding periods,

in each case subject to certain adjustments determined by CME described above (in Adjustment Methodology), including the Cash Adjustment which shall be applied to each Forward Starting SOFR OIS, and applied according to its published methodology set out in Exhibit 4.

Limitation of Clearing Support for USD LIBOR Swaps after Secondary Conversion Date

From COB on the Secondary Conversion Date, except for the limited exception noted below, CME will cease to accept the relevant USD LIBOR Swaps for clearing.

Until further notice by CME to market participants, in order to continue to support clearing of any USD LIBOR Swap that results from the exercise of a bilateral (uncleared) Swaption contract exercise after the Secondary Conversion Date, CME will accept for clearing any spot or forward settled USD LIBOR Swap that is submitted to CME for clearing following COB on the Secondary Conversion Date where the start date of such swap is on or after such date. At COB on the date of acceptance for clearing, CME will convert such USD LIBOR Swap contract utilizing the process applied by CME to forward starting USD LIBOR Swaps on the Primary Conversion Date, as described above.⁴⁸

The USD LIBOR Conversion is a mandatory process and the terms set out in the Clearing Advisory (in the form appended as Exhibit 2) will apply to all cleared trades in USD LIBOR Swaps from April 21, 2023, subject to regulatory review.

Amendment to Primary Conversion Date in Limited Circumstances

CME will reserve the right to amend the proposed Primary Conversion Date in its sole and absolute discretion prior to the Primary Conversion in limited circumstances, for example, where implementation of the conversion process on the previously communicated date could, in the opinion of the Clearing House, result in an unacceptable level of operational or market disruption or where financial stability issues could threaten the orderly transition. In such circumstances, CME would communicate the amended Primary Conversion Date to market participants as soon as practicable upon making such determination.⁴⁹

Legal and Operational Characterization; Messaging and Reporting to SDR

In legal and contractual terms, each Conversion process will amend the terms of cleared trades in CME cleared USD LIBOR Swaps, converting the terms of each cleared trade to a standardized CME cleared SOFR interest rate swap and, where applicable, a Short-Dated USD LIBOR Swap. From an operational perspective, each relevant Conversion will be processed by CME as a “termination” of each relevant USD

⁴⁸ CME will convert the relevant USD LIBOR Swap into a SOFR OIS. There is no resulting Short-Dated LIBOR Swap.

⁴⁹ CME Clearing has identified a provisional contingency fallback date of May 12, 2023, in the event that the April 21, 2023, date for the Primary Conversion is determined to be unsuitable as the date of Primary Conversion.

LIBOR Swap and the establishment of a “new” corresponding cleared trade in SOFR OIS within the clearing system, the Forward Starting SOFR OIS or corresponding SOFR swap and, where applicable, a new Short-Dated USD LIBOR Swap.

To reflect the operational processes within the clearing system, CME will send:

- a termination message to relevant CME Clearing Members in respect of the termination of each relevant converted USD LIBOR Swap; and
- a clearing confirmation message to relevant CME Clearing Members in respect of the establishment of each new relevant Forward Starting SOFR OIS or corresponding SOFR swap and, as applicable. Short-Dated USD LIBOR Swap.

As part of the relevant Conversion process, a subset of Trade IDs from each original USD LIBOR Swap will be carried over to the relevant resulting SOFR OIS and Short-Dated USD LIBOR Swap. The CME Trade ID and USI/UTI are not carried over but, in order to identify the link between each original USD LIBOR Swap and the relevant resulting SOFR OIS and any Short-Dated USD LIBOR Swap, CME will add a replacement Trade ID and Original Trade ID respectively in the History section of the clearing confirmation messages.

CME will report the close out of each USD LIBOR Swap and the establishment of each corresponding Forward Starting SOFR OIS, Short-Dated USD LIBOR Swap and/or other resulting SOFR swap in the account of the relevant position holder to the CME SDR under Part 45 of the CFTC’s Regulations. With regard to reporting data submitted to SDR in respect of each resulting swap, CME will populate the “Prior USI” field with the USI of the relevant original USD LIBOR Swap to reflect the nature of the Conversion process. For SDR reporting purposes, reporting rows will be generated and submitted to CME SDR terminating the USI of each original USD LIBOR Swap and CME will ensure that each resulting SOFR swap will be reported as a “New Trade.”

Examples of Cash Adjustment Amount Calculation and Processing

Calculation of Cash Adjustment Amount

The Cash Adjustment amount is necessary to account for the difference in valuation between the original USD LIBOR Swap and the combined valuation of the resulting SOFR OIS and any related Short-Dated USD LIBOR Swap on the relevant Conversion Date. The difference in the NPV of each original USD LIBOR Swap and the corresponding replacement swaps on the relevant Conversion Date represents a gain or loss to the relevant position holder in each case. In order to neutralize the transfer in value between position holders arising from the transition, CME will apply a Cash Adjustment amount equal and opposite to the change in NPV resulting from the transition to each resulting SOFR OIS.

The Cash Adjustment amount will be calculated by CME on each relevant Conversion Date as follows (the “Conversion Calculation”):

- On or shortly after COB on the relevant Conversion Date, the Clearing House will conduct a standard valuation calculation during the end of day clearing cycle, to determine the NPV for each relevant original USD LIBOR Swap subject to the relevant Conversion process on

- that date, calculated utilizing CME's closing curve marks on the relevant Conversion Date for each position account and the ISDA Fallback Pricing Methodology.
- Upon establishment of each SOFR OIS and any Short-Dated USD LIBOR Swap within the clearing system, on or shortly after COB on the relevant Conversion Date, the Clearing House will conduct an additional calculation to determine the NPV for each SOFR OIS and any Short-Dated USD LIBOR Swap calculated utilizing CME's closing curve marks on the relevant Conversion Date for each position account.
 - Note that the determination of the NPV of the original USD LIBOR Swap and the SOFR OIS and any Short-Dated USD LIBOR Swap will be calculated on an "adjusted" basis, where the adjusted NPV in each case is the NPV less the present value of any fee or coupon payment due to bank on the following Business Day.
 - The difference between the two NPV calculations for each original USD LIBOR Swap and the corresponding replacement swap(s) represents the change in NPV arising from the conversion of the reference rate exposure of that position from the USD LIBOR rate to SOFR.

The relevant Cash Adjustment amount to be applied to each resulting SOFR OIS in each position account shall be equal and opposite to the relevant change in NPV calculated by CME in the Conversion Calculation. As the Cash Adjustment for each SOFR OIS will be equal and opposite to the change in NPV calculated by CME, it may be a positive or negative amount depending on the position.

Payment of Cash Adjustment Amount

Where the holder of a resulting SOFR OIS had benefited from a change in NPV, i.e. where the resulting swap(s) NPV is greater than the corresponding original USD LIBOR Swap NPV, the Cash Adjustment will be a negative amount equal to that change in NPV. The Cash Adjustment amount will be applied to the resulting SOFR OIS as an upfront fee which will be due and paid from the position holder (to the Clearing House as central counterparty and other party to the cleared trade), at the next clearing cycle following the relevant Conversion Date, during which cycle settlement variation for positions in the SOFR OIS will be determined and outstanding exposures and payments netted and settled in accordance with CME Rule 814 ("Settlements, Settlement Variation Payment, and Option Value"). Accordingly, where the holder of a resulting SOFR OIS experiences a negative change in NPV, the Cash Adjustment will be a positive amount and will be applied to the SOFR OIS as an upfront fee which will be due and paid to the position holder (from the Clearing House, as central counterparty and other party to the cleared trade).

Given that the change in NPV calculated by the Conversion Calculation is offset exactly by the Cash Adjustment amount, indicated by the figure in the "Net Cash Flow" column in the examples in the table below, the net cash flow with respect to the NPV change is zero on both a per account basis and an overall product basis for the Clearing House.

The Cash Adjustment process is a mandatory process that will apply in respect of cleared trades in affected USD LIBOR Swaps in scope of the relevant Conversion process on the relevant Conversion Date.

Cash Adjustment Examples

The example below demonstrates the operational processing of a Conversion for a hypothetical USD LIBOR Swap and the Cash Adjustment processes, reflecting the operational characterization of the process

as a “termination” of the original USD LIBOR Swap and establishment of a “new” Forward Starting SOFR OIS and corresponding Short-Dated USD LIBOR Swap. As noted above, in legal terms, the Conversion is treated as an amendment of the terms of the relevant cleared trade.

As of COB on Friday, April 21, 2023

Value Date	Cleared Trade ID	Floating Rate Option	Status	NPV	NPV Adj.*	Previous NPV Adj.	Variation Margin	Upfront Payment	Fee Type	Payment Date	Net Cash Flow	
Original USD LIBOR Swap	04/21/2023	11224	USD-LIBOR	TERMINATED	0	0	59,000.00	-59,000.00	-	-	-	-59,000.00
Short-Dated USD LIBOR Swap	04/21/2023	34563	USD-LIBOR	CLEARED	5,000.00	5,000.00	0	5,000.00	-	-	-	5,000
Forward Starting SOFR OIS	04/21/2023	67896	USD-SOFR-OIS Compound	CLEARED	55,000.00	53,000.00	0	53,000.00	2,000.00	UPFRONT_FEE	04/24/2023	55,000.00

* NPV Adj. reflects the value of the swap removing any fee payments to be made the following business day. In the event of multiple replacement swaps, all Adjusted NPVs are added to calculate the Cash Adjustment.

Cash Adjustment Calculation Example*

Original USD LIBOR Swap Valuation NPV Adj. as at COB April 21, 2023 = 60,000.00
 Forward Starting SOFR OIS Valuation + Short-Dated USD LIBOR Swap Valuation (NPV Adj. as at 04/21/2023) = 5,000.00 + 53,000.00 = 58,000.00
 PnL Change = (53,000.00 + 5,000.00) – 60,000.00 = - 2,000.00
 Cash Adjustment = Change in Adjusted NPV = 2,000.00

* Note: In this example, the Cash Adjustment offsets the gain of 2,000.00 between the Original USD LIBOR Swap and the combined valuation of the Forward Starting SOFR OIS and the Short-Dated USD LIBOR Swap

Resulting swaps as of COB on Next Value Date – Variation Margin example

Value Date	Cleared Trade ID	Floating Rate Index	Status	NPV	NPV Adj.	Previous NPV Adj.	Variation Margin	Upfront Payment	Fee Type	Payment Date	Net Cash Flow
04/24/2023	34563	USD LIBOR	CLEARED	5,500.00	5,500.00	5,000.00	500.00	-	-	-	500.00
04/24/2023	67896	USD-SOFR-OIS Compound	CLEARED	53,500.00	53,500.00	53,000.00	500.00	-	-	-	500.00

Calculation Breakdown (04/21/2023)

Original USD LIBOR Swap VM = NPV Adj. – Previous NPV Adj.
 = 0 - 59,000.00 = -59,000.00

PnL Change = NPV Adj. (Forward Starting SOFR OIS) + NPV Adj. (Short Dated USD LIBOR swap) – NPV Adj. Original USD LIBOR Swap
 = (53,000.00 + 5,000.00) – 60,000.00 = - 2,000.00

Cash Adjustment Amount = (NPV Adj. of Original USD LIBOR Swap – NPV Adj. of Forward Starting SOFR OIS + NPV Adj. (Short Dated USD LIBOR swap)
 = 60,000.00 – (5,000.00 + 53,000.00) = 2,000.00

NPV Adj. (Forward Starting SOFR OIS) = NPV – Upfront Payment
 = 55,000.00 – (2,000.00) = 53,000.00

CME's approach to "compensation" arising from change in NPV through the Cash Adjustment process is widely supported by market participants. The process has been discussed with Clearing Members and their customers and is understood to be consistent with the needs and expectations of market participants, and consistent with wider industry initiatives.

Clearing of Forward Starting SOFR OIS and Short-Dated USD LIBOR Swaps

Each Forward Starting SOFR OIS and Short-Dated USD LIBOR Swap will be cleared by CME in accordance with the CME Rules.

From the completion of the end of day clearing cycle on the relevant Conversion Date, each Forward Starting SOFR OIS and any Short-Dated USD LIBOR Swap resulting from any Conversion process will for the remaining lifecycle of the relevant cleared trade be subject to valuation and settlement variation (as defined in the CME Rules) for each clearing cycle following the relevant Conversion Date.

From the completion of the end of day clearing cycle on the relevant Conversion Date, each Short-Dated USD LIBOR Swap will be cleared by CME and shall not be subject to any Conversion or Fallback process under the CME Rules.

Fees for USD LIBOR Conversion Process

CME will apply a transaction fee per line item for conversion of any CME cleared interest rate swaps that reference USD LIBOR (a "Conversion Fee"). In each case the Conversion Fee for Clearing Member House positions shall be a fee of \$10 and the Conversion Fee for Customer positions shall be a fee of \$25 which shall be applied by the Clearing House per line item subject to the relevant Conversion and shall apply on the resulting Forward Starting SOFR OIS transactions.⁵⁰

Fee Type	Trade Types	Products	Source, Terminate Reason (TR), Create Reason (CR)	HOUSE FM / NONFM	CUSTOMER Standard Client Schedule
SOFR Conversion Fee	All	All	CR = Index Conversion	\$10 per line item*	\$25 per line item*

*This fee will be charged on the resulting SOFR referencing trades except for Short-Dated USD LIBOR Swaps (or the terminated LIBOR swaps) which will not be charged.

⁵⁰ The Conversion Fee shall not apply to: Short-Dated USD LIBOR Swaps resulting from the Conversion process or to the termination of USD LIBOR Swaps. For bilateral swaption exercises that result in a cleared swap under the legacy LIBOR index, a Conversion Fee corresponding to the appropriate account type per converted trade will be applied to the position in addition to the new trade clearing fees.

For bilateral swaption exercises that result in a Forward Starting SOFR OIS under the legacy index reference rate, CME will conduct a daily conversion of such trades to SOFR OIS and will apply a charge of \$10 (for House positions) and \$25 (for Customer positions) per converted trade to the position and to which new trade clearing fees apply.

CME will apply a Conversion Fee of \$10 for each House Forward Starting SOFR OIS and a Conversion Fee of \$25 for each Customer Forward Starting SOFR OIS that is established as a result of the relevant Conversion process in each case.

Limitation of Acceptance for Clearing for USD LIBOR Referencing Swaps Following Secondary Conversion Date

From close of business on the Secondary Conversion Date, the Clearing House will cease to accept for clearing trades in USD LIBOR Swaps except that, in order to support ongoing clearing and conversion of USD LIBOR Swap trades resulting from exercise of a bilateral (uncleared) Swaption contract after the Secondary Conversion Date, CME will continue to accept USD LIBOR Swaps for clearing where the Start Date of the submitted LIBOR Swap is on or after the Cleared Date (date of submission) of the submitted LIBOR Swap, which must be on or after close of business on the Secondary Conversion Date.

CME will implement validation processes that shall apply from the Secondary Conversion Date which will provide that:

- If the Start Date of the submitted USD LIBOR Swap is on or after the Cleared Date, the trade will be accepted for clearing by CME; and
- If the Start Date of the submitted USD LIBOR Swap is before the Cleared Date, the trade will not be accepted for clearing by CME.

Where an eligible USD LIBOR Swap is submitted for clearing with a Cleared Date that is on or after the Index Cessation Effective Date (a “Residual Swap”), immediately on acceptance of the trade for clearing CME shall be deemed to apply the Permanent Cessation Fallbacks in CME Rule 90102.H. and shall amend the terms of the Residual Swap such that the references to USD LIBOR as the Floating Rate Option rate shall be deemed to refer to the SOFR Fallback Rate as the successor floating rate option to the USD LIBOR rate of such Residual Swap for the purposes of clearing the trade prior to conversion at COB.

At COB on the date of acceptance for clearing by CME of such Residual Swap, CME will apply the Conversion process to such trade to convert the Residual Swap into a corresponding Forward Starting SOFR OIS, utilizing the methodology for the relevant Primary Conversion Date.

4. Implementation of USD LIBOR Transition

No amendments to the Rulebook are necessary to implement the Basis Swap Conversion or the USD LIBOR Conversions that make up the USD LIBOR Transition.

Basis Swap Conversion

The Basis Swap Conversion will be implemented via Advisory Notice published by the Clearing House setting out the terms of the Basis Swap Conversion, in the form set out in Exhibit 1. The Advisory Notice will be made available to Clearing Members, market participants and the general public via the CME Group

website. The Advisory Notice will be binding on position holders in all USD LIBOR Basis Swaps on and after the Basis Swap Conversion Date of March 24, 2023.

From close of business on the Basis Swap Conversion Date, CME will cease to accept transactions in USD LIBOR Basis Swaps for clearing. The list of basis swap contracts accepted for clearing will be updated on the CME Group website to reflect the delisting of the Basis Swap contracts.

The Basis Swap Conversion is a mandatory process and market participants will be notified in the Advisory Notice that the Basis Swap Conversion will apply to all positions in the relevant Basis Swaps on the Basis Swap Conversion Date. Market participants will be reminded that they should consider the terms and impact of the Basis Swap Conversion as set out in the Advisory Notice and take appropriate action prior to the Basis Swap Conversion Date. Position holders that do not wish to participate in the Basis Swap Conversion must close out any cleared trades in the Basis Swaps prior to the Basis Swap Conversion Date.

USD LIBOR Swap Conversion

The USD LIBOR Conversion will be implemented via Advisory Notice published by the Clearing House setting out the terms of each Conversion, in the form set out in Exhibit 2. The Advisory Notice will be made available to Clearing Members, market participants and the general public via the CME website. The Advisory Notice will be binding on position holders in all USD LIBOR Swaps on and after April 21, 2023.

In order to reflect the limited acceptance of USD LIBOR IRS from the Secondary Conversion Date, the product rules for USD LIBOR Swaps will be amended in Rule 90102.E.1. (“Interest Rate Swaps Rate Options”). Exhibit 3 below provides amendments to Rule 90102.E.1. in blackline format.

Each of the USD LIBOR Transition, the relevant Conversion and Cash Adjustment process is a mandatory process and market participants will be notified in the Advisory Notice that the USD LIBOR Transition will apply to all positions in USD LIBOR Swaps on the relevant Conversion Date, except those maturing on or before the relevant Conversion Date. Market participants will be reminded that they should consider the terms and impact of the USD LIBOR Transition as set out in the Advisory Notice and take appropriate action prior to the relevant Conversion Date. Position holders that do not wish to participate in the USD LIBOR Transition must close out any cleared trades in relevant USD LIBOR Swaps prior to the relevant Conversion Date.

In addition to the information provided in each Advisory Notice, the Clearing House will provide to Clearing Members the following information applicable to positions in the relevant Basis Swaps / USD LIBOR Swaps (as applicable) on the relevant Conversion Date, or as otherwise specified below:

- End of Day Trade Register report made available by the Clearing House only to IRS clearing members and clients via an sFTP site;
- CME OTC IRS Bookkeeping document, made available to IRS Clearing Members and their customers on request;
- FpML Confirmations in respect of the operational termination of each Pre-Conversion Basis Swap and USD LIBOR Swap and the establishment of each relevant replacement swap; and

- Cash Adjustment Report made available by the Clearing House only to IRS Clearing Members and clients via an sFTP site, illustrating the NPV for each original USD LIBOR Swap and the revised NPV for each Forward Starting SOFR OIS (combined with any Short-Dated USD LIBOR Swap, as applicable) and the Cash Adjustment at the trade level for each position account. This report will be available as an “Indicative Analysis Report” in the CME Production Environment on a daily basis from January 2023 until the Secondary Conversion Date. The actual Cash Adjustment amounts will be indicated in the IRS Trade Register at COB on the relevant Conversion Date.

Limited application of CME Rule 90102.H

CME will not apply the Permanent Cessation Fallbacks in CME Rule 90102.H. (“Application of Permanent Cessation Fallbacks”) in respect of any IRS Contract referencing USD LIBOR Swaps, except in relation to any cleared USD LIBOR Swap trade where the start date of the submitted LIBOR swap is on or after the Index Cessation Effective Date.

5. Governance, Industry Consultation, Comments/Opposing Views:

The conversion of cleared USD LIBOR Swaps by the amendment of cleared trades into corresponding SOFR OIS by CCPs is seen by market participants, and has been recognized by the FCA and other regulatory authorities, as a critical element in the overall process of ensuring an orderly and efficient transition from USD LIBOR in derivatives markets.

In CME’s engagement with market participants in relation to the specific question of USD LIBOR transition during 2022, market participants expressed a clear preference for CME to implement a modified approach to the bilateral ISDA fallbacks for USD LIBOR swaps, similar to the previous CCP-led Non-USD LIBOR Conversion at the end of 2021. Market participants have requested that CME should utilize the ISDA Spread Adjustment and ISDA Fallback Pricing Methodology instead to support a CCP-led and compensated conversion of cleared USD LIBOR swaps into corresponding standardized SOFR swaps, accounting for the ISDA Spread Adjustment on the floating leg of the replacement swap, a short period ahead of the Scheduled Final Representative USD LIBOR Publication Date, rather than rely fully on the ISDA-derived contractual fallbacks that would otherwise apply under the CME Rules on the Index Cessation Effective Date. The preliminary conversion of cleared USD LIBOR Basis Swaps by the “splitting” of such cleared trades into corresponding pairs of fixed-float IRS by CCPs is also seen by market participants as an important preliminary step in the overall process of ensuring an orderly and efficient transition from USD LIBOR to SOFR in derivatives markets.

The industry consensus communicated to CME by market participants indicates that the significant majority of cleared market participants prefer such an “early” and CCP-led conversion of cleared USD LIBOR Swaps into standardized successor SOFR swaps (accounting for the ISDA Spread Adjustment as part of the conversion process) as it has certain advantages for market participants over full reliance on the ISDA-derived contractual fallbacks. In particular, market participants noted that application of the ISDA contractual fallbacks without modification would give rise to resulting positions that would not be on the same terms, and not fungible with, standardized cleared SOFR swaps. This could create difficulties for participants wishing to unwind non-standardized resulting SOFR swap contracts; to do so, market

participants would need to execute and book additional non-standard swaps in an uncertain liquidity environment. During CME's industry engagement processes, market participants have informed CME that the CCP-led conversion of USD LIBOR swap exposures into market standard SOFR OIS (whilst accounting for the relevant ISDA Spread Adjustment on the conversion) ensures sufficient alignment with the ISDA contractual fallbacks approach in bilateral uncleared swaps but also benefits the marketplace by:

- Creating a single transparent liquidity pool for trading SOFR OIS;
- Providing participants certainty that "legacy" and "new" contracts would be fungible with one another upon transition to the SOFR fallback; and
- Supporting market standard SOFR OIS that are themselves widely supported by market participants and market infrastructure, thereby removing the need to operationally support the "Observation Period Shift" (within the meaning of the ISDA 2021 Definitions) concept that operates under the ISDA IBOR Fallbacks.⁵¹

Market participants, industry groups and regulators recognize these benefits of a CCP-led conversion and CME's proposed approach has been well publicized and understood, as demonstrated by the non-USD LIBOR transitions led by CME and other major CCPs at the end of 2021. The FCA has welcomed the approach of CME and other major CCPs to undertake a CCP-led conversion of USD LIBOR swaps ahead of the Index Cessation Effective Date.⁵²

In addition, in providing their support for CCP-led conversion, market participants have indicated that an "early" transition of USD LIBOR swaps to SOFR OIS can and should be scheduled before the June 2023 time period to ease potential operational congestion for cash and derivatives market participants and CCPs given the scheduled transition for bilateral uncleared derivatives markets.

Furthermore, during the engagement, these stakeholders have expressed a clear preference that CME's approach to the USD LIBOR transition should be broadly aligned with other major CCPs clearing USD LIBOR swaps, which CCPs have expressed their intention to effect a conversion of USD LIBOR Swaps in April / May 2023.⁵³ Given the feedback from market participants, CME has determined to convert USD LIBOR Swaps to corresponding SOFR OIS ahead of the Index Cessation Effective Date, and to broadly align its approach and proposed timing for the USD LIBOR Transition, where possible, with that of the other major CCPs clearing USD LIBOR swaps. Also, CME has determined that the USD LIBOR Conversion shall be aligned as closely as possible with the corresponding date proposed for the CME-led conversion of CME

⁵¹ The methodology for conversion utilized by CME will account for the payment lag arising from conversion into a standardized RFR swap.

⁵² See FCA comments on CCP-led transition in June and November 2022 respectively in relation to "synthetic" USD LIBOR, see <https://www.fca.org.uk/publication/consultation/cp22-11.pdf> and <https://www.fca.org.uk/publication/consultation/cp22-21.pdf>.

⁵³ CME understands that each of LCH Limited and Eurex Clearing AG propose to implement conversion processes for their respective customers in order to convert USD LIBOR swaps, also to take place around the same conversion dates proposed by CME. See <https://www.eurex.com/ec-en/find/circulars/Eurex-Clearing-Readiness-Newsflash-EurexOTC-Clear-Timeline-for-OTCClear-transition-of-transactions-referencing-the-USD-LIBOR-benchmark-3244922> and <https://www.lch.com/membership/ltd-membership/ltd-member-updates/rates-reform-usd-libor-fallback-and-conversion-fees>. We understand that CME's methodology for the conversion process is broadly aligned with other CCPs from a cash flow and risk perspective although market participants should review each CCP's relevant rules and procedures to understand any material differences between CCP conversion processes, including those relating to operational processes and timings. Market participants requested that CME should effect its conversion processes on a different date to those of other CCPs, and the CME Eurodollar Futures and Options conversion process, in order to facilitate operational processing by Clearing Members and their customers. The timing for the relevant CME conversion dates reflects this requirement.

Eurodollar Futures and Options contracts also scheduled for April 2023⁵⁴ to help mitigate systemic risk during the transition process. As noted above, to ensure close alignment with the operational and economic terms of the ISDA contractual fallbacks applicable to bilateral uncleared derivatives, CME's conversion process accounts for the relevant ISDA Spread Adjustment on the floating leg of the resulting CME cleared SOFR swap.

CME has consulted with a diverse cross-section of market participants to obtain feedback on the operational processes for the USD LIBOR Transition. As noted above, the proposed processes are substantively similar to the approach adopted by CME in December 2021 to effect the Non-USD LIBOR Transition, in relation to which CME had conducted extensive outreach and engagement in late 2020 and 2021.⁵⁵ During the course of 2022, as part of ongoing discussions with market participants on this issue, CME shared public details of the proposals to effect an "early" and "CCP-led" transition away from USD LIBOR ahead of the Index Cessation Effective Date. A period of public consultation on the proposals ended in July 2022 and the final proposal was published by CME in August 2022, which includes a detailed operational methodology presentation providing full operational level detail on the processes that CME will follow to implement the transition.^{56 57}

As part of its industry engagement, CME provided an overview of its transition process to the ARRC Paced Transition Plan Working Group and the CFTC Market Risk Advisory Committee Subcommittee on Interest Rate Benchmark Reform.

Following the successful Non-USD LIBOR Transition in 2021 and early 2022, market participants are familiar with CME's approach and methodology implementing changes to the reference terms of IRS contracts and operational processes to effect cash compensation to reflect valuation changes having been tested in both test and production environments.

During the consultation process, there were no substantive opposing views raised by market participants with respect to the proposals for the USD LIBOR Transition as set out in the text of the Advisory Notice.

The Clearing House IRS Risk Committee reviewed the USD LIBOR Transition proposal in the October 2022 meeting of the IRS Risk Committee and no objections were raised to the Conversion proposals. The Clearing House Oversight Committee ("CHOC") reviewed the Conversion proposals and operative text of

⁵⁴ The CME Eurodollar Futures and Options fallbacks implementation plan is available at <https://www.cmegroup.com/articles/2022/eurodollar-fallbacks-implementation-plan.html>. In December 2022, CME submitted amendments to the USD LIBOR fallback provisions in the contract terms to Three-Month Eurodollar Futures and Options on Three-Month Eurodollar Futures Contracts. See CME Submission 22-567, available at: <https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2022/12/22-567.pdf>.

⁵⁵ CME first presented an overview of the non-USD LIBOR transition proposals to market participants in January 2021, with further updated proposals in Q1 2021, culminating in publication of a summary of the proposed final methodology for the GBP/CHF/JPY LIBOR Transition which was provided to market participants and made publicly available in June 2021. Further, operational level details were provided by CME to market participants in August 2021. CME published a detailed conversion plan in June 2021, available at: <https://www.cmegroup.com/trading/interest-rates/files/cleared-swaps-considerations-for-ibor-fallbacks-and-conversion-plan.pdf>. A further public overview was made available on the CME Group website in August 2021 at: <https://www.cmegroup.com/trading/interest-rates/files/cme-ibor-conversion-for-chf-jpy-and-gbp-cleared-swaps.pdf>.

⁵⁶ See: <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>

⁵⁷ See CME publication "CME Conversion for USD LIBOR Cleared Swaps, August 2022, accessible at <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>.

the Clearing Advisory in the December 2022 meeting of the CHOC and no objections were raised to the Conversion proposals.⁵⁸

CME is not aware of any other substantive opposing views with respect to the USD LIBOR Transition or the text of the Advisory Notice.

CME recognizes that the USD LIBOR Transition and each relevant Conversion will have an impact on market participants holding open positions in USD LIBOR Swaps. As a result, as part of the preparations for the USD LIBOR Transition, CME will provide market participants with information, reporting tools and operational “dress rehearsals” to promote operational readiness and to ensure that CME clearing members and their customers understand the processes of the transition and are operationally ready for the relevant Conversion Dates.⁵⁹ CME will conduct dress rehearsals for clearing member testing on the following dates:

- January 27, 2023 – Basis Swap Conversion dress rehearsal
- February 10, 2023 – Primary Conversion dress rehearsal
- March 3, 2023 – Secondary Conversion dress rehearsal (ZCS and any remaining in-scope USD LIBOR swaps)
- The initial publication of "indicative analysis reports" is targeted for January 23, 2023 and will be available for both clearing members and clients

6. Derivatives Clearing Organization Core Principles (“DCO Core Principles”) Analysis in Connection with the USD LIBOR Transition and Advisory Notices

CME reviewed the DCO Core Principles as set forth in the CEA. During the review, CME identified the following DCO Core Principles as potentially being impacted:

DCO Core Principle D – Risk Management: Following extensive market consultation, the implementation of the Basis Swap Conversion and the USD LIBOR Transition via the Advisory Notice has been designed to be straightforward from an operational processing perspective.

The Basis Swap Conversion ensures that each Replacement Basis Swap Pair will retain the key economic terms of the corresponding Pre-Conversion Basis Swap. The combined NPV of each Replacement Basis Swap Pair will be equal to that of the corresponding Pre-Conversion Basis Swap prior to amendment. As a result, the Basis Swap Conversion will not result in any change in risk exposure for a position holder of a Pre-Conversion Basis Swap. Also as a result, no risk or cash compensation is required for position holders.

⁵⁸ CME will effect the Rule amendments under the authority of CME under Chapter 2 (Government) of the CME Rulebook which provides (at Rule 230.(j)) that the CME Board of Directors shall “make and amend the Rules; provided the Board may also delegate authority to make and amend the rules as it deems appropriate.”

⁵⁹ For the non-USD LIBOR transition, operational testing and additional support was scheduled and provided by CME prior to the proposed date of implementation, including New Release Dress Rehearsals. Details of the relevant Dress Rehearsals for non-USD LIBOR transitions are available in [CME Clearing Advisory 21-392](#) and [CME Clearing Advisory 21-377](#). For any USD LIBOR Swaps cleared in New Release, CME will run a daily conversion cycle in the New Release environment to establish resulting swaps in the New Release environment.

The USD LIBOR Transition ensures that each resulting conversion swap will retain the key economic terms of the corresponding original USD LIBOR Swap to the extent practicable, in accordance with CME's published methodology, and shall include the relevant ISDA Spread Adjustment. Further, pricing the original USD LIBOR Swaps under the ISDA Fallback Pricing Methodology to compute the Cash Adjustment ensures that the LIBOR Swap value is fair and is not subject to market manipulation. As a result, differences in projected cash flow amounts are reduced which ensures the Conversion will result in a minimal change in risk exposure for a position holder of an original USD LIBOR Swap.

Based on extensive outreach to customers, CME understands that market participants support this approach and its close alignment with the approach of other CCPs.

DCO Core Principle L – Public Information: The implementation of the USD LIBOR Transition via the Advisory Notices and the operational elements of the conversions will affect market participants holding USD LIBOR swaps. A summary of the USD Transition was provided to market participants and made publicly available as part of a public consultation process that ended in July 2022, with a subsequent publication of the final proposal in August 2022.⁶⁰ CME has taken appropriate steps to provide market participants with sufficient information to enable those market participants to identify and evaluate effectively the risk associated with holding positions in USD LIBOR Swaps at the time of the relevant Conversions and thereafter. The operational workflows and legal basis for the USD LIBOR Transition have been made publicly available. As noted above, as part of the preparations for the USD LIBOR Transition, CME will provide market participants with a number of operational "Dress Rehearsal" testing environments for the relevant Conversion processes, to simulate the processes for the relevant Conversion Date.

CME will report the operational processes relating to the USD LIBOR Transition in accordance with Part 45 of the CFTC's Regulations, as described above.

DCO Core Principle N – Antitrust Considerations: The USD LIBOR Transition will not result in any unreasonable restraint of trade or impose any material anticompetitive burden. The USD LIBOR Transition reflects a critical step in an industry-wide initiative to transition interest rate swaps and other products away from USD LIBOR, in line with the objectives of market participants and industry working groups, which is widely supported by market participants as promoting the orderly transition away from USD LIBOR. CME has engaged with market participants to obtain feedback on the processes for the USD LIBOR Transition and has not received any comments regarding antitrust/fair competition concerns. The absence of such concerns is expected, given that it is well-established that the transition away from IBORs to alternative reference rates that are supported by a sufficiently liquid market was initiated and strongly encouraged by government authorities in the United States, including the Financial Stability Oversight Council, and across the globe, including the FSB and the UK FCA. The pervasive government role in this initiative, and the transparent process that CME and other stakeholders have followed to address international regulators' concerns and objectives, make clear that the coordinated approach to implementation of fallbacks for IBORs, including USD LIBOR, is designed to mitigate risks to financial stability identified by regulators and not to harm competition.

⁶⁰ See CME publication "CME Conversion for USD LIBOR Cleared Swaps, August 2022, accessible at <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>.

The modifications to the CME Rulebook to effect the Basis Swap Conversion will be implemented via Advisory Notice published by the Clearing House setting out the terms of the Conversion, in the form set out in Exhibit 1 (the “Basis Swap Conversion Advisory Notice”). The Basis Swap Conversion Advisory Notice will be binding on all position holders and Clearing Members and shall be effective on the Basis Swap Conversion Date.

The modifications to the CME Rulebook to effect the USD LIBOR Conversion will be implemented via Advisory Notice published by the Clearing House setting out the terms of the USD LIBOR Transition, in the form set out in Exhibit 2 (the “USD LIBOR Conversion Advisory Notice”). The USD LIBOR Conversion Advisory Notice will be binding on all position holders and Clearing Members and shall be effective on April 21, 2023 and thereafter.

Pursuant to Section 5c(c) of the CEA and CFTC Regulation 40.5(a), CME certifies that the Rule Amendments in the form of Exhibit A comply with the CEA and the regulations thereunder.

CME certifies that this submission has been concurrently posted on CME Group's website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director & Chief Regulatory Counsel

Attachments: Exhibit 1 – CME Clearing Advisory Notice – Basis Swap Conversion
Exhibit 2 – CME Clearing Advisory Notice – USD LIBOR Conversion
Exhibit 3 – Amendments to CME Chapter 901 (blackline format)
Exhibit 4 – CME Methodology for USD LIBOR Transition

Exhibit 1 CME Clearing Advisory Notice



TO: Clearing Member Firms
Back Office Managers

DATE: [], 2023

FROM: CME Clearing

NOTICE #: 23-[]

SUBJECT: **Modification and Withdrawal of Clearing Support for Certain Cleared Over-the-Counter (“OTC”) U.S. Dollar (“USD”) Denominated Interest Rate Basis Swaps Referencing the London Interbank Offered Rate (“LIBOR”)**

Background

On March 5, 2021, the UK Financial Conduct Authority (“FCA”) announced that all remaining settings of USD ICE LIBOR¹ would cease to be representative of the underlying market from June 30, 2023 (the “Scheduled Final Representative USD LIBOR Publication Date”).² These circumstances constitute an “Index Cessation Event” within the meaning of contractual “fallback” provisions within the ISDA IBOR Fallbacks Supplement and the CME Rulebook.³ As a result, as with bilateral uncleared derivative contracts incorporating the relevant ISDA contractual fallbacks, the existing contractual fallbacks in CME cleared OTC derivative contracts currently provide that USD LIBOR referencing swaps shall transition to the Secured Overnight Financing Rate (“SOFR”) as the reference rate for affected contracts following the relevant “Index Cessation Effective Date”, which shall be the next publication date after the Scheduled Final Representative USD LIBOR Publication Date.

However, following the successful CME Clearing-led conversion of Non-USD LIBOR derivative contracts into corresponding standardised successor risk-free rate overnight index swaps (“OIS”) in December 2021

¹ The family of interest rate benchmarks known as “LIBOR” are also known as “ICE LIBOR” (LIBOR® and ICE LIBOR®) and are administered and published by ICE Benchmark Administration Limited, a U.K. authorised and regulated benchmark administrator. ICE LIBOR is a registered trademark of Intercontinental Exchange Holdings, Inc. and is used under license.

² See FCA Announcement, March 5, 2021, available at

<https://www.fca.org.uk/publication/documents/future-cessation-loss-representativeness-libor-benchmarks.pdf>. In November 2022, the FCA opened a consultation proposing to continue to publish certain USD LIBOR settings on a “synthetic”, non-representative basis after end-June 2023 but confirmed that such rates would be permitted for limited use only in certain legacy contracts and that such rates would not be representative of the underlying market and economic reality that USD LIBOR seeks to measure.

³ In January 2021, as part of regulatory and industry initiatives to transition away from certain key interbank offered rates (“IBORs”) and interest rate benchmarks, CME implemented certain changes to the CME Rulebook to incorporate “fallback” provisions into CME cleared IRS to provide for contractual fallback to a relevant alternative spread and term adjusted RFR on the permanent discontinuation or “non-representativeness” of certain key IBORs, including USD LIBOR.

See <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2021/01/Chadv21-039.pdf>.

ahead of the relevant Index Cessation Effective Dates (the “Non-USD LIBOR Conversion”)⁴, market participants have expressed a preference for a similar CCP-led conversion of OTC USD LIBOR IRS into corresponding standardized SOFR OIS before the Scheduled Final Representative USD LIBOR Publication Date rather than to rely on implementation of the existing contractual fallback provisions in the CME Rulebook based on the relevant ISDA contractual fallbacks. As a result, [subject to regulatory review], CME proposes to convert the majority of CME cleared USD LIBOR IRS to reference SOFR, the nominated successor to USD LIBOR, shortly before the Scheduled Final Representative USD LIBOR Publication Date (the “USD LIBOR Conversion”).⁵

As a preliminary process prior to the proposed USD LIBOR Conversion, following discussions with market participants and subject to regulatory review, CME has determined that it is necessary and beneficial for CME to:

- implement modifications to the terms of certain CME cleared OTC basis swaps referencing USD LIBOR (except USD LIBOR vs Fed Funds basis swaps⁶) (the “Basis Swaps”) to convert each such cleared Basis Swap into corresponding CME cleared fixed-floating interest rate swaps (the “Basis Swap Conversion”), to take effect following close of business on Friday, March 24, 2023 (the “Basis Swap Conversion Date”); and
- withdraw clearing support for the Basis Swaps following the Basis Swap Conversion.

The Basis Swap Conversion is necessary as a preliminary step ahead of the USD LIBOR Conversion scheduled for April 2023. The Basis Swap Conversion will not have an economic impact on position holders and CME will remain neutral from a risk perspective.⁷

The modification to the terms of the Basis Swaps to implement the Basis Swap Conversion is set out in this Clearing Advisory Notice, effective March 24, 2023, [subject to regulatory review]. No amendments to the CME Rulebook are required to effect the Basis Swap Conversion.

With effect from close of business on the Basis Swap Conversion Date, CME will withdraw clearing support for the Basis Swaps and will therefore cease to accept for clearing trades in the Basis Swaps from that

⁴ In December 2021, CME effected a conversion of CME cleared British Pound (“GBP”), Japanese Yen (“JPY”) and Swiss Franc (“CHF”) OTC IRS contracts into standardized corresponding “risk-free rate” (“RFR”) overnight index swaps (“OIS”) ahead of the relevant “Index Cessation Effective Dates” for such contracts. This was driven by market participants’ clear preference for a CPP-led conversion process into standardized RFR OIS rather than reliance on the fallback provisions equivalent to those used in bilateral uncleared markets. Ahead of the Non-USD LIBOR Conversion, CME effected a conversion of GBP and JPY denominated interest rate basis swap products in September 2021, converting each CME cleared affected basis swap contract into corresponding CME cleared fixed-floating interest rate swaps- see <https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2021/9/21-412.pdf>. See also CME Submission 21-515, accessible at <https://www.cftc.gov/sites/default/files/filings/orgrules/21/11/rule111821cmeco001.pdf>.

⁵ A secondary conversion event will take place shortly after the Scheduled Final Representative USD LIBOR Publication Date to convert any remaining USD LIBOR IRS not converted on the primary USD LIBOR Conversion date. For further details, see <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>. CME will incorporate necessary changes to the CME Rulebook to effect the USD LIBOR Conversion in due course ahead of implementation in March / April 2023. For the avoidance of doubt, the Conversion process for Basis Swaps that is the subject of this submission is a separate operational process to the USD LIBOR Conversion, however, market participants agree with CME that the Conversion is a necessary and preliminary process that must be undertaken by CME prior to the USD LIBOR Conversion in April 2023.

⁶ USD LIBOR vs. Fed Funds basis swaps are excluded from the Basis Swap Conversion. CME will retain these contracts as basis swaps and later convert them to SOFR vs Fed Funds Basis Swaps as a part of the USD LIBOR Conversion in April 2023.

⁷ Note that position holders will continue to have exposure in USD LIBOR referencing IRS following the Basis Swap Conversion. CME proposes to convert USD LIBOR swaps to SOFR OIS and to convert USD LIBOR vs Fed Funds basis swap exposures into corresponding SOFR vs Fed Funds basis swaps as part of the conversion processes for the USD LIBOR Conversion.

time. No amendments to the CME Rulebook are required to effect the delisting of the Basis Swaps. The list of basis swap contracts accepted for clearing by CME will be updated on the CME Group website from the Basis Swap Conversion Date to reflect the delisting of the Basis Swaps.

Rationale for Basis Swap Conversion Process

CME has consulted with a diverse cross-section of market participants to obtain feedback on the proposals and operational processes for the Basis Swap Conversion, in the context of the broader USD LIBOR Transition proposals. The Basis Swap Conversion is seen by market participants as an important preliminary step in the overall process of ensuring an orderly and efficient transition from USD LIBOR to SOFR in derivatives markets. Market participants have expressed a clear preference for CME to effect the conversion of USD LIBOR Basis Swaps ahead of the proposed USD LIBOR Conversion scheduled for April 2023. Without this preliminary process, USD LIBOR vs SOFR and USD LIBOR vs USD LIBOR basis swaps would be converted, as part of the proposed USD LIBOR Conversion, into replacement SOFR-SOFR basis swaps. Such a product is operationally and technically difficult for the marketplace to support and would not be fungible with standard SOFR overnight index swaps, making them relatively illiquid which, in turn, would create challenges for market participants in managing those positions and for CCPs in managing them in the event of a default.

As a result, CME has determined that it is necessary and beneficial to convert or “split” each USD LIBOR vs SOFR and USD LIBOR vs USD LIBOR basis swaps into corresponding pairs of fixed-float IRS referencing USD LIBOR as a preliminary process ahead of the proposed USD LIBOR Conversion scheduled for April 2023. A summary of CME's Basis Swap Conversion plan was provided to market participants and made publicly available in August 2022.⁸

The Basis Swap Conversion will not have any economic impact on position holders in the Basis Swaps or CME and will be neutral from a risk perspective. As a result, no cash compensation or adjustment mechanism is required.

Further details on the Basis Swap Conversion are set out below.

Summary of Basis Swap Conversion Process

The Basis Swap Conversion is a mandatory process and will apply to all cleared trades in USD LIBOR basis swaps on the Basis Swap Conversion Date except:

- those basis swaps that mature on the Basis Swap Conversion Date; or
- USD LIBOR vs Fed Funds basis swaps.

At close of business on the Basis Swap Conversion Date, CME will convert each in-scope CME cleared Basis Swap that is open at close of business on the Basis Swap Conversion Date (each, a “Pre-Conversion Basis Swap”) by splitting each Pre-Conversion Basis Swap into corresponding pairs of CME cleared fixed-float interest rate swaps, as follows:

⁸ See <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>

- CME will close out each Pre-Conversion Swap and establish in the account of the position holder of such Pre-Conversion Basis Swap the following replacement CME cleared IRS trades (corresponding to the relevant Floating Rate Index of the Pre-Conversion Basis Swap) as per the direction of the Pre-Conversion Basis Swap:
 - a fixed-float interest rate swap, with Direction Pay Fixed, with a Floating Index Tenor corresponding to the Floating Rate Index 1 of the Pre-Conversion Basis Swap; and
 - a fixed-float interest rate swap, with Direction Receive Fixed, with a Floating Index Tenor corresponding to the Floating Rate Index 2 of the Pre-Conversion Basis Swap

(each, a “Replacement Swap” and together, a “Replacement Swap Pair”).

- The Currency, Notional, Effective Date, Maturity Date, Day Count, Date Roll, Payment Calendar and Floating Leg Spread of each Replacement Swap (as applicable) will be the same as that of the relevant Pre-Conversion Basis Swap. Therefore all USD LIBOR and SOFR floating legs will be carried over to the relevant Replacement Swap in each case.
- The Fixed Rate for each Replacement Swap in a Replacement Swap Pair will be determined by CME and shall be equal to the “break-even” rate of the “larger” index tenor for the Pre-Conversion Basis Swap, e.g. 6 months for a 3 month vs. 6 month Basis Swap. The Fixed Rate determined by CME for each Replacement Swap will ensure that payments under each Replacement Swap will fully offset the payments of the other Replacement Swap in that Replacement Swap Pair.
- Each Replacement Swap Pair will retain the key economic terms of the corresponding Pre-Conversion Basis Swap. The combined Net Present Value (“NPV”) of each Replacement Swap Pair will be equal to that of the corresponding Pre-Conversion Basis Swap prior to close out. As a result, the Basis Swap Conversion will not result in any change in risk exposure for a position holder of a Pre-Conversion Basis Swap. As a result, no risk or cash compensation is required for position holders.
- Each Replacement Swap will be cleared by CME as an interest rate swap subject to the terms of the CME Rules.

From close of business on the Basis Swap Conversion Date, CME will no longer have any open interest in the Basis Swaps and will cease to accept USD LIBOR Basis Swaps for clearing.

In legal and contractual terms, the Basis Swap Conversion process will amend the terms of cleared trades in CME cleared USD LIBOR Basis Swaps, resulting in the operational establishment of replacement cleared trades in the form of the Replacement Swaps. This is reflected in operational terms by the reporting of each Replacement Swap by CME to CME SDR with reference to the “Prior USI” of the relevant corresponding Pre-Conversion Basis Swap. From an operational perspective within the CME clearing system, the Basis Swap Conversion will be processed by CME as a termination of each relevant Pre-Conversion Basis Swap and the establishment of a new corresponding pair of cleared trades within the clearing system in the form of the relevant Replacement Swaps.

Amendment to Basis Swap Conversion Date in Limited Circumstances

CME reserves the right to amend the proposed Basis Swap Conversion Date in its sole and absolute discretion prior to the Basis Swap Conversion in limited circumstances, for example, where implementation of the conversion process on the previously communicated date could, in the opinion of the Clearing House, result in an unacceptable level of operational or market disruption or where financial stability issues could

threaten the orderly transition. In such circumstances, CME will communicate the amended Basis Swap Conversion Date to market participants as soon as practicable upon making such determination.⁹

Fees for Basis Swap Conversion Process

There are no Exchange fees payable in connection with the Basis Swap Conversion.

Operational Information and Reporting

CME will provide operational testing and additional support prior to the proposed date of implementation, including a New Release Dress Rehearsal on January 27, 2023.¹⁰

On the Basis Swap Conversion Date, to reflect the operational processes within the clearing system, CME will send:

- a termination message to relevant CME Clearing Members in respect of the termination of each relevant Pre-Conversion Basis Swap; and
- a clearing confirmation message to relevant CME Clearing Members in respect of the establishment of each new relevant Replacement Swap.

As part of the Basis Swap Conversion process, all relevant Trade IDs on the Pre-Conversion Basis Swap will be carried over to the relevant Replacement Swaps. In order to identify the link between each Pre-Conversion Basis Swap and the relevant Replacement Swaps, CME will add a replacement Trade ID and Original Trade ID respectively in the History section of the clearing confirmation messages.

CME will report the result of Basis Swap Conversion to CME SDR in accordance with the requirements of the CFTC's Part 45 Regulations, to reflect the splitting of each Pre-Conversion Basis Swap into each Replacement Swap Pair. With regard to reporting data submitted to SDR in respect of each Replacement Swap, CME will populate the "Prior USI" field with the USI of the relevant Pre-Conversion Basis Swap to reflect the nature of the Basis Swap Conversion process. For SDR reporting purposes, reporting rows will be generated and submitted to CME SDR terminating the USI of each Pre-Conversion Basis Swap and CME will ensure that each Replacement Swap will be reported as a "New Trade."

Implementation of Basis Swap Conversion

This Advisory Notice sets out the binding rules and operational processes under which CME Clearing will implement the Basis Swap Conversion, including the modification and operational close out of USD LIBOR Basis Swaps and the establishment of replacement USD fixed-float interest rate swaps, which will be

⁹ CME Clearing has identified a provisional contingency fallback date of April 14, 2023, in the event that the March 24, 2023, date for the Basis Swap Conversion is determined to be unsuitable.

¹⁰ The public overview is available on the CME Group website at: <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>. CME will operate an operational "Dress Rehearsal" for the Conversion process on January 27, 2023, to simulate the processes for the Basis Swap Conversion Date. All open Basis Swaps in the "New Release" Environment (not Production) will be converted on that date to enable market participants to take part in a "test" portfolio Basis Swap Conversion simulation.

implemented by CME with respect to open cleared trades in affected CME cleared products at the Basis Swap Conversion Date.

The Basis Swap Conversion is a mandatory process and will therefore apply to all positions in cleared trades in affected contracts on the Basis Swap Conversion Date. Market participants should consider the terms and impact of the Basis Swap Conversion as set out in this Advisory Notice and take appropriate action prior to the Basis Swap Conversion Date. Position holders that do not wish to participate in the Basis Swap Conversion must close out any positions in affected Basis Swap Contracts prior to the Basis Swap Conversion Date.

Capitalized terms used but not defined in this Advisory Notice shall have the meaning set out in the CME Rules.

Terms and Operation of Basis Swap Conversion Process

CME Cleared Contracts Subject to the Basis Swap Conversion and this Advisory Notice

The Basis Swap Conversion will apply to all CME cleared trades in USD Basis Swaps, with the exception of USD LIBOR vs Fed Funds basis swaps, that are open at close of business (“COB”) on the Basis Swap Conversion Date (as defined in paragraph 1 below) and which do not mature on the Basis Swap Conversion Date (the “Affected Basis Swap Contracts”).

Terms and Operation of Basis Swap Conversion Process

1. The Basis Swap Conversion Date shall be March 24, 2023 or such other date determined by the Clearing House in its sole and absolute discretion prior to the Basis Swap Conversion where implementation of the conversion process on March 24, 2023 or such other previously communicated date could, in the opinion of the Clearing House, result in an unacceptable level of operational or market disruption or where financial stability issues could threaten the orderly transition. In such circumstances, CME will communicate the Basis Swap Conversion Date to market participants as soon as practicable upon making such determination.
2. At or shortly after COB on the Basis Swap Conversion Date, CME Clearing will amend each cleared trade in the Affected Basis Swap Contracts (each, a “Pre-Conversion Basis Swap”).
3. In respect of each Pre-Conversion Basis Swap, CME Clearing will close out the Pre-Conversion Basis Swap and establish in the account of the position holder of such Pre-Conversion Basis Swap the following replacement CME cleared IRS trades:
 - (a) a fixed-float interest rate swap, with Direction Pay Fixed, with a Floating Index Tenor corresponding to the Floating Rate Index 1 of the Pre-Conversion Basis Swap; and
 - (b) a fixed-float interest rate swap, with Direction Receive Fixed, with a Floating Index Tenor corresponding to the Floating Rate Index 2 of the Pre-Conversion Basis Swap,(each, a “Replacement Swap” and together, a “Replacement Swap Pair”).
4. Each Replacement Swap will have the following terms:

- (a) The Currency, Notional, Effective Date, Maturity Date, Day Count, Date Roll, Payment Calendar and Floating Leg Spread of each Replacement Swap (as applicable) will be the same as that of the relevant Pre-Conversion Basis Swap; and
 - (b) The Fixed Rate for each Replacement Swap in a Replacement Swap Pair will be determined by CME and shall be equal to the “break-even” rate of the “larger” index tenor for the Pre-Conversion Basis Swap, e.g. 6 months for a 3 month vs. 6 month Basis Swap. The Fixed Rate determined by CME for each Replacement Swap will ensure that payments under each Replacement Swap will fully offset the payments of the other Replacement Swap in that Replacement Swap Pair.
5. Each Replacement Swap will be cleared by CME as an interest rate swap subject to the terms of the CME Rules.
6. The terms of this Advisory Notice and the Basis Swap Conversion process are binding on Clearing Members and position holders in all Affected Basis Swap Contracts, effective March 24, 2023 [subject to regulatory review]. To the extent that there is any conflict between the Rules and the terms of this Advisory Notice with respect to the Basis Swap Conversion process, this Advisory Notice shall prevail. For the purposes of this Advisory Notice, Rule 90103.A. (“Contract Modifications; CME Rules”) shall not apply to the extent it purports to restrict modification to the terms of IRS Contracts that are the subject of this Advisory Notice.

Withdrawal of Clearing Support for USD LIBOR Basis Swaps Following Basis Swap Conversion

From close of business on the Basis Swap Conversion Date, CME Clearing will cease to accept for clearing trades in the Affected Basis Swap Contracts. No amendments to the CME Rulebook are required to effect the delisting of the Basis Swaps. The list of basis swap contracts accepted for clearing by CME will be updated on the CME Group website to reflect the delisting of the Basis Swaps from close of business on the Basis Swap Conversion Date.

Additional details regarding the Basis Swap Conversion may be viewed in **CME Submission No. 23-082**.

Inquiries regarding the aforementioned may be directed to:

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Exhibit 2 CME Clearing Advisory Notice



TO: Clearing Member Firms
Back Office Managers

DATE: [], 2023

FROM: CME Clearing

NOTICE #: 23-[]

SUBJECT: **Modification of Cleared Over-the-Counter (“OTC”) U.S. Dollar (“USD”) Denominated Interest Rate Swap Products Referencing the London Interbank Offered Rate (“LIBOR”) and Limitation of Acceptance for Clearing**

Background

On March 5, 2021, the UK Financial Conduct Authority (“FCA”) announced that all remaining settings of USD ICE LIBOR¹¹ would cease to be representative of the underlying market from June 30, 2023 (the “Scheduled Final Representative USD LIBOR Publication Date”).¹² These circumstances constitute an “Index Cessation Event” within the meaning of contractual “fallback” provisions within the ISDA IBOR Fallbacks Supplement, 2021 ISDA Interest Rate Derivatives Definitions and the Rulebook of Chicago Mercantile Exchange, Inc. (“CME”, the “Clearing House” or “CME Clearing”) (the “CME Rulebook”). As a result, under the current CME Rulebook fallback provisions following the Scheduled Final Representative USD LIBOR Publication Date, CME cleared IRS referencing USD LIBOR would transition to reference a term and spread adjusted fallback Secured Overnight Financing Rate (“SOFR”) on July 3, 2023, being the “Index Cessation Effective Date” within the meaning of those rules.

However, following the successful CME Clearing-led conversion of Non-USD LIBOR derivative contracts into corresponding standardised risk-free rate overnight index swaps (“OIS”) in December 2021 ahead of the relevant Index Cessation Effective Dates for those LIBOR rates (the “Non-USD LIBOR Conversion”)¹³, market participants have expressed a preference for a similar CCP-led conversion of OTC USD LIBOR IRS into corresponding standardized SOFR OIS in good time before the Scheduled Final Representative USD LIBOR Publication Date.

¹¹ The family of interest rate benchmarks known as “LIBOR” are also known as “ICE LIBOR” (LIBOR® and ICE LIBOR®) and are administered and published by ICE Benchmark Administration Limited, a U.K. authorised and regulated benchmark administrator. ICE LIBOR is a registered trademark of Intercontinental Exchange Holdings, Inc. and is used under license.

¹² See FCA Announcement, March 5, 2021, available at <https://www.fca.org.uk/publication/documents/future-cessation-loss-representativeness-libor-benchmarks.pdf>.

¹³ In December 2021, CME effected a conversion of CME cleared British Pound (“GBP”), Japanese Yen (“JPY”) and Swiss Franc (“CHF”) OTC IRS contracts into standardized corresponding “risk-free rate” (“RFR”) overnight index swaps (“OIS”) ahead of the relevant “Index Cessation Effective Dates” for such contracts. This was driven by market participants’ clear preference for a CPP-led conversion process into standardized RFR OIS rather than reliance on the fallback provisions equivalent to those used in bilateral uncleared markets. See <https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2021/9/21-412.pdf> and CME Submission 21-515, accessible at <https://www.cftc.gov/sites/default/files/filings/orgrules/21/11/rule111821cmcdco001.pdf>.

As a result, in response to this market participant feedback, CME has determined that it will not implement the “Permanent Cessation Fallbacks” anticipated by CME Rule 90102.H. (“Application of Permanent Cessation Fallbacks”) for USD LIBOR IRS on the “Index Cessation Effective Date” for USD LIBOR after June 30, 2023. CME proposes instead that, subject to regulatory review, CME will convert:

- the majority of CME cleared USD LIBOR IRS to reference SOFR, the nominated successor to USD LIBOR on April 21, 2023, or such other date determined by CME in its sole and absolute discretion (the “Primary Conversion Date”); and
- the remainder of open CME cleared USD LIBOR IRS on July 3, 2023 (the “Secondary Conversion Date”).

In each case, the relevant conversion process will amend the terms of in scope USD LIBOR Swaps to reference the relevant successor SOFR floating rate option through conversion of open swaps into standardized SOFR OIS, where relevant, with a cash adjustment mechanism to compensate for any resulting change in valuation and accounting for the relevant ISDA Spread Adjustment (as defined below), utilizing CME’s publicly available methodology that accounts for any remaining representative USD LIBOR fixings, further details of which are provided below.¹⁴

Following the Secondary Conversion Date, CME will provide only a limited clearing service in respect of USD LIBOR Swaps, in order to continue to support clearing of any USD LIBOR Swap that results from the exercise of a bilateral (uncleared) Swaption contract exercise after the Index Cessation Effective Date, and CME will subject any eligible swaps to a similar conversion process on the day of acceptance of such swap for clearing (such processes, together, the “USD LIBOR Conversion”).

The conversion processes that together form the USD LIBOR Conversion have been determined by CME based on extensive discussions with market participants and are designed to be broadly aligned with wider industry initiatives for transition of cleared USD LIBOR IRS and listed interest rate derivative products to SOFR.

The modification to the terms of the USD LIBOR Swaps to implement the USD LIBOR Conversion is set out in this Clearing Advisory Notice which shall be binding on Clearing Members and position holders of CME cleared IRS Contracts in USD LIBOR Swaps from close of business on April 21, 2023, [subject to regulatory review].

Rationale for USD LIBOR Conversion Processes

The conversion of cleared USD LIBOR Swaps by the amendment of cleared trades into corresponding standardized SOFR OIS by CCPs is seen by market participants as a critical element in the overall process of ensuring an orderly and efficient transition from USD LIBOR rates in derivatives markets. The existing contractual fallbacks in CME cleared OTC derivative contracts¹⁵, as with bilateral uncleared derivative

¹⁴ For further details, see <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf> and CME Submission 23-082.

¹⁵ In January 2021, as part of regulatory and industry initiatives to transition away from certain key interbank offered rates (“IBORs”) and interest rate benchmarks, CME implemented certain changes to the CME Rulebook to incorporate “fallback” provisions into CME cleared IRS to provide for contractual fallback to a relevant alternative spread and term adjusted “risk-free rate” (“RFR”) on the

contracts incorporating the relevant ISDA contractual fallbacks, currently provide that USD LIBOR referencing swaps shall transition to a term and spread adjusted SOFR rate, calculated according to the industry-agreed methodology published by ISDA (the “ISDA Fallback Pricing Methodology”), following the “Index Cessation Effective Date”, i.e. July 3, 2023, being the next USD LIBOR publication date after the Scheduled Final Representative USD LIBOR Publication Date.¹⁶

However, as noted above, market participants have expressed a clear preference for CME to implement an approach similar to that utilized for the Non-USD LIBOR Conversion in December 2021, rather than to fully operationalize the relevant ISDA-derived fallbacks in CME Rule 90102.H (“Application of Permanent Cessation Fallbacks”) for USD LIBOR Swaps. This is because market participants believe that CCP application of the ISDA-derived contractual fallbacks to cleared USD LIBOR swaps would give rise to resulting positions that would not be on the same terms as, and therefore not fungible with, standardized cleared SOFR OIS. This could create difficulties for participants wishing to unwind non-standardized resulting SOFR swap contracts; to do so, market participants would need to execute and book additional non-standard swaps in an uncertain liquidity environment. During CME’s industry engagement processes in 2022, market participants informed CME that an alternative, CCP-led conversion of USD LIBOR swap exposures into market standard SOFR OIS (whilst accounting for the ISDA Spread Adjustment on the

permanent discontinuation or “non-representativeness” of certain key IBORs, including USD LIBOR. See <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2021/01/Chadv21-039.pdf>. In October 2021, concurrently with the implementation by ISDA of the 2021 ISDA Interest Rate Derivatives Definitions (the “2021 ISDA Definitions”), by way of amendment to the CME Rules and as set out in Clearing Advisory 21-335, CME revoked Clearing Advisory 21-039 and confirmed the incorporation into the CME Rules of the contractual fallback triggers and fallback provisions contained within the 2021 ISDA Definitions, replacing those substantially equivalent provisions contained in the ISDA IBOR Fallbacks Supplement and subsequent additional supplements by ISDA. See CME Rule 90102.H. (“Permanent Cessation Fallbacks”) and [CME Submission No. 21-431](#).

¹⁶ The “Fallback Rate” under these contractual fallbacks is calculated and made publicly available by Bloomberg Index Services Limited (“BISL”). BISL and its affiliates was selected by ISDA as the vendor to calculate and distribute the RFR adjustments determined in accordance with the ISDA Fallback Pricing Methodology. The ISDA “Spread Adjustment” methodology is designed to reflect a portion of the structural differences between interbank offered rates, such as LIBOR, and the RFRs used for the fallbacks in the case of each LIBOR rate. BISL publishes the ISDA Spread Adjustment data at <https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation-Announcement-20210305.pdf>. BISL calculates and publishes the “Adjusted RFR” according to the prescribed ISDA methodology, as set out in the IBOR Fallback Rate and Adjustments Rule Book published by BISL at <https://data.bloomberglp.com/professional/sites/10/IBOR-Fallback-Rate-Adjustments-Rule-Book.pdf>. BISL publishes a summary of the IBOR Fallbacks process on its website at <https://data.bloomberglp.com/professional/sites/10/IBOR-Fallbacks-Fact-Sheet.pdf>. BLOOMBERG is a trademark and service mark of Bloomberg Finance L.P. (“BFLP”). ISDA is a trademark and service mark of the International Swaps and Derivatives Association, Inc. (“ISDA”). LIBOR® and ICE LIBOR® are trademarks of ICE Benchmark Administration Limited and/or its affiliates (collectively, “ICE”) and are used with permission under licence by ICE. Bloomberg Index Services Limited (“BISL” and, collectively with BFLP and their affiliates, “Bloomberg”) maintains and calculates the ‘fallback’ data comprising the ‘all in’ fallback rates and their component parts, the adjusted ‘risk-free’ reference rates and the spread adjustment (collectively with any other data or information relating thereto or contained therein, the “Fallback Rates Data”) under an engagement between BISL and ISDA. To the extent Bloomberg uses LIBOR in the determination of certain Fallback Rates Data, it does so under licence from ICE. None of Bloomberg, ISDA or, where applicable, ICE guarantees or makes any claim, prediction, warranty or representation whatsoever, express or implied, regarding the timeliness, accuracy, completeness of, or fitness for a particular purpose with respect to, the Fallback Rates Data and each shall have no liability in connection with the Fallback Rates Data. Without limiting the foregoing, to the fullest extent permitted by applicable law, none of Bloomberg, ISDA or, where applicable, ICE will be liable in contract or tort (including negligence), for breach of statutory duty or nuisance, or under antitrust laws, for misrepresentation or otherwise, in respect of any inaccuracies, errors, omissions, delays, failures, cessations or changes (material or otherwise) in the Fallback Rates Data, or for any damage, expense or other loss (whether direct or indirect) suffered by any person arising out of or in connection with the Fallback Rates Data or any reliance placed upon it by any person, and all implied terms, conditions and warranties, including, without limitation, as to quality, merchantability, fitness for purpose, title or non-infringement, in relation to the Fallback Rates Data, are hereby excluded. None of Bloomberg, ISDA or, where applicable, ICE makes any representations regarding whether the Fallback Rates Data would be appropriate for derivative or non-derivative financial instruments, including derivatives transacted outside of standard ISDA documentation and related protocols. Market participants are encouraged to consider and analyze the details of the Fallback Rates Data and determine independently whether they would be appropriate for any such use.

conversion) ensures sufficient alignment with the ISDA contractual fallbacks approach in bilateral uncleared swaps but also benefits the marketplace by:

- creating a single transparent liquidity pool for trading SOFR swaps;
- providing participants certainty that “legacy” and “new” contracts would be fungible with one another upon transition to the SOFR fallback; and
- supporting market standard SOFR OIS that are themselves widely supported by market participants and market infrastructure, thereby removing the need to operationally support the “Observation Period Shift” (within the meaning of the ISDA 2021 Definitions) concept that operates under the ISDA IBOR Fallbacks.¹⁷

In addition, in providing their support for a CME-led conversion of USD LIBOR swaps to SOFR OIS, market participants have indicated a preference that the bulk of such transition should be scheduled to take place before the Index Cessation Effective Date, and broadly in line with other CCP conversion processes, to ease potential operational congestion for cash and derivatives market participants and CCPs relating to the scheduled transition for bilateral uncleared derivatives markets following end-June 2023. Stakeholders have expressed a clear preference that the timing of CME’s primary USD LIBOR transition process should be broadly aligned with other major CCPs clearing USD LIBOR swaps, which have expressed their intention to effect a conversion of USD LIBOR Swaps in April 2023.¹⁸ Given this feedback from market participants, CME has determined that the Primary Conversion Date of April 21, 2023 is the most appropriate date for the bulk of the CME USD LIBOR Swap conversion processes to take place, also being closely aligned with the corresponding date proposed for the CME-led conversion of CME Eurodollar Futures and Options contracts scheduled for April 2023¹⁹ to help mitigate systemic risk during the transition process.

CME has consulted with a diverse cross-section of market participants to obtain feedback on the operational processes for the USD LIBOR Conversion. As noted above, the proposed processes are substantively similar to the approach adopted by CME in December 2021 to effect the Non-USD LIBOR Conversion, in relation to which CME had conducted extensive outreach and engagement in late 2020 and 2021.²⁰ During the course of 2022, as part of ongoing discussions with market participants on this issue, CME shared public details of the proposals to effect an “early” and “CCP-led” transition away from USD LIBOR ahead of the scheduled Index Cessation Effective Date following publication on June 30, 2023. A period of public

¹⁷ The methodology for conversion utilized by CME will account for the payment lag arising from conversion into a standardized SOFR OIS.

¹⁸ CME understands that each of LCH Limited and Eurex Clearing AG propose to implement conversion processes for their respective customers in order to convert USD LIBOR swaps also to take place on or around the same conversion dates proposed by CME. See <https://www.eurex.com/ec-en/find/circulars/Eurex-Clearing-Readiness-Newsflash-EurexOTC-Clear-Timeline-for-OTCClear-transition-of-transactions-referencing-the-USD-LIBOR-benchmark-3244922> and <https://www.lch.com/membership/ltd-membership/ltd-member-updates/rates-reform-usd-libor-fallback-and-conversion-fees>.

¹⁹ The CME Eurodollar Futures and Options fallbacks implementation plan is available at <https://www.cmegroup.com/articles/2022/eurodollar-fallbacks-implementation-plan.html>. In December 2022, CME submitted amendments to the USD LIBOR fallback provisions in the contract terms to Three-Month Eurodollar Futures and Options on Three-Month Eurodollar Futures Contracts. See CME Submission 22-567, available at <https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2022/12/22-567.pdf>.

²⁰ CME first presented an overview of the non-USD LIBOR transition proposals to market participants in January 2021, with further updated proposals in Q1 2021, culminating in publication of a summary of the proposed final methodology for the Non-USD LIBOR Conversion which was provided to market participants and made publicly available in June 2021. Further, operational level details were provided by CME to market participants in August 2021. CME published a detailed conversion plan in June 2021, available at: <https://www.cmegroup.com/trading/interest-rates/files/cleared-swaps-considerations-for-ibor-fallbacks-and-conversion-plan.pdf>. A further public overview was made available on the CME Group website in August 2021 at: <https://www.cmegroup.com/trading/interest-rates/files/cme-ibor-conversion-for-chf-jpy-and-gbp-cleared-swaps.pdf>.

consultation on the proposals ended in July 2022 and the final proposal was published by CME in August 2022, which included a detailed operational methodology presentation providing full operational level detail on the processes that CME will follow to implement the transition.²¹

Market participants, industry groups and regulators recognize these benefits of a CCP-led conversion of USD LIBOR Swaps to SOFR OIS and CME's proposed approach has been well publicized and understood, as demonstrated by the non-USD LIBOR transitions led by CME and other major CCPs at the end of 2021. The FCA has welcomed the approach of CME and other major CCPs to undertake a CCP-led conversion of USD LIBOR swaps ahead of the Index Cessation Effective Date.²²

Summary of USD LIBOR Conversion Process

Conversion of CME cleared USD LIBOR Swaps

Subject to regulatory review, CME will transition CME cleared USD LIBOR Swaps by converting such contracts to reference SOFR on the relevant conversion date determined by CME (and on a daily basis after the Secondary Conversion Date for a limited category of contracts), utilizing a mandatory conversion process and the relevant methodology determined by CME, as summarized below:

²¹ See: <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>

²² See FCA comments on CCP-led transition in June and November 2022 respectively in relation to "synthetic" USD LIBOR, see <https://www.fca.org.uk/publication/consultation/cp22-11.pdf> and <https://www.fca.org.uk/publication/consultation/cp22-21.pdf>.

Date	Conversion Date	CME cleared swaps subject to Conversion on date	Output of Conversion
April 21, 2023 ²³	Primary Conversion Date	USD LIBOR vs Fed Funds Basis Swap	SOFR vs Fed Funds Basis Swap; and Short-Dated USD LIBOR vs Fed Funds Basis Swap
		USD LIBOR IRS with a maturity date after the Primary Conversion Date* *Excluding: <ul style="list-style-type: none"> • Zero Coupon Swaps; and • USD LIBOR IRS where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date, but which do not settle prior to the Scheduled Final Representative USD LIBOR Publication Date 	For Seasoned Swaps: <ul style="list-style-type: none"> • Short-Dated USD LIBOR Swap accounting for all remaining unsettled representative USD LIBOR fixings in respect of the original USD LIBOR Swap; and • Forward Starting SOFR OIS with start date of the maturity date of Short-Dated USD LIBOR Swap
July 3, 2023	Secondary Conversion Date	Zero Coupon USD LIBOR IRS	For Seasoned Swaps: Forward Starting SOFR OIS <ul style="list-style-type: none"> • Representative LIBOR fixings and compounded floating legs accounted for • Payment at maturity retained for floating and fixed leg • 2-day payment offset applied to coupon • Adjusted “known amount” on fixed leg • Adjusted notional to account for previous compounding periods
			For Forward Starting Swaps: Forward Starting SOFR OIS with effective/maturity dates of original USD LIBOR Swap
		USD LIBOR IRS and USD LIBOR vs Fed Funds Basis Swaps submitted for clearing after COB on the Primary Conversion Date and before COB on the Secondary Conversion Date	As for Primary Conversion
		USD LIBOR IRS that result from exercise of bilateral swaptions submitted for clearing after the Primary Conversion Date and before the Secondary Conversion Date	As for Primary Conversion
Daily basis after Secondary Conversion Date	Ongoing Conversion on the date of acceptance for clearing by CME (each, a “Conversion Date”)	USD LIBOR IRS that are spot or forward starting with a start date after COB on the Secondary Conversion Date, in order to support clearing and conversion of swaps that result from exercise of bilateral swaptions	As for Secondary Conversion

Conversion Processes - Adjustment Methodology

CME has published its detailed methodology for the Conversion processes, including worked examples (the “Published Methodology”), which is summarized below:²⁴

- each resulting CME cleared SOFR OIS arising from the Conversion process (each, a “Forward Starting SOFR OIS”) will account for the ISDA Spread Adjustment on the floating leg of the SOFR OIS swap, retaining the key economic terms of the original trade, subject to certain adjustments described below and determined by CME according to the Published Methodology;
- each resulting CME cleared short-dated USD LIBOR Swap arising from the Conversion process (each, a “Short-Dated USD LIBOR Swap”) is designed to account for any known representative USD LIBOR rate coupons that will be unpaid on the Index Cessation Effective Date, restating these accrual periods as CME cleared Short-Dated USD LIBOR Swaps which will have economic terms as determined by CME according to the Published Methodology;
- in order to neutralize the value transfer from the conversion of the economic position of each original USD LIBOR Swap into each relevant Forward Starting SOFR OIS / replacement positions, CME will calculate a cash adjustment amount that will be based on the difference between the net present value (“NPV”) of the original USD LIBOR Swap and the combined NPV of the Forward Starting SOFR OIS and any Short-Dated USD LIBOR Swap on the relevant Conversion Date. The Cash Adjustment for each Forward Starting SOFR OIS will be equal and opposite to the change in NPV calculated by CME, and therefore may be a positive or negative amount depending on the position (the “Cash Adjustment”).²⁵ The Cash Adjustment amount will be applied by CME in the form of upfront “fees” on each resulting cleared Forward Starting SOFR OIS on the relevant conversion date (each such date, a “Conversion Date”);
- cash flows relating to the Cash Adjustment will be applied in the next end of day clearing cycle following the relevant Conversion Date;
- the Cash Adjustment will ensure that the NPV change for position holders impacted by the relevant conversion will be neutralized;
- in each case, any Forward Starting SOFR OIS will be cleared as a CME cleared SOFR OIS (referencing the USD-SOFR-OIS Compound Floating Rate Option) and any Short Dated USD LIBOR Swap will be cleared as a USD LIBOR Swap;
- for USD LIBOR – Fed Funds Basis Swaps, any open USD LIBOR payment period will be replaced with (i) a Short-Dated USD LIBOR vs Fed Funds Basis Swap with effective and maturity dates to match the current LIBOR period start and end dates, and (ii) a Forward Starting SOFR vs Fed Funds Basis Swap with effective date set as the next payment period start date for the original USD LIBOR basis swap with the same maturity date as the original USD LIBOR basis swap. The

²³ CME will reserve the right to determine an alternative date as the Primary Conversion Date in its sole and absolute discretion.

²⁴ See <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>. Further details are also available in CME Submission 23-082.

²⁵ Where the holder of a Forward Starting SOFR OIS had benefited from a change in NPV, an upfront fee equal and opposite to that amount of change in NPV would be applied to that Forward Starting SOFR OIS and such amount would be due from the position holder at the next clearing cycle. Where the holder of a Forward Starting SOFR OIS experiences a negative change in NPV, an upfront fee equal and opposite to that amount of change in NPV would be applied to the Forward Starting SOFR OIS and such amount would be due to the position holder at the next clearing cycle. The net cash flow position for all participants is neutral. The net cash flow position for the Clearing House is neutral.

resulting SOFR vs Fed Funds Basis Swap will apply the ISDA Spread Adjustment on the first floating leg.

Primary Conversion Date – Conversion Processes

A: USD LIBOR IRS excluded from Primary Conversion

The following CME cleared USD LIBOR IRS open on the Primary Conversion Date are excluded from the conversion process on the Primary Conversion Date:

- (i) USD LIBOR Swaps that mature on the Primary Conversion Date;
- (ii) USD LIBOR IRS where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date, but which do not settle prior to the Scheduled Final Representative USD LIBOR Publication Date; and
- (iii) Zero Coupon USD LIBOR Swaps.

B: Conversion of Seasoned USD LIBOR Swaps on the Primary Conversion Date

CME will convert each eligible CME cleared USD LIBOR Swap open on the Primary Conversion Date that is not a Forward Starting Swap (each, a “Seasoned Swap”) into:

- (i) a corresponding standardized Forward Starting SOFR OIS, retaining the key economic terms of the original USD LIBOR Swap trade; and
- (ii) a Short-Dated USD LIBOR Swap accounting for all representative USD LIBOR fixings in respect of the original USD LIBOR Swap that are unpaid and settle after the Primary Conversion Date,

in each case subject to certain adjustments determined by CME described above (in section titled Adjustment Methodology), including the Cash Adjustment which shall be applied to each Forward Starting SOFR OIS, and applied according to the Published Methodology.

If the original Seasoned USD LIBOR Swap has a single representative LIBOR fixing that has not been paid/settled prior to the Index Cessation Effective Date:

- the resulting Short-Dated USD LIBOR Swap will be a single period Fixed – LIBOR swap that settles the coupon payments; and
- the Forward Starting SOFR OIS start date will be the maturity date of the Short Dated USD LIBOR Swap.

If the original Seasoned USD LIBOR Swap has multiple representative LIBOR fixings that have not been paid/settled prior to the Index Cessation Effective Date:

- the resulting Short-Dated USD LIBOR Swap will be a multiple period Fixed-LIBOR swap that settles the coupon payments; and
- the Forward Starting SOFR OIS start date will be the maturity date of the Short-Dated USD LIBOR Swap.

C: Conversion of Forward Starting USD LIBOR Swaps with an effective date after the Index Cessation Effective Date on the Primary Conversion Date

CME will convert each CME cleared USD LIBOR Swap that is a Forward Starting Swap and is open on the Primary Conversion Date into:

- a corresponding standardized Forward Starting SOFR OIS, retaining the key economic terms of the original USD LIBOR Swap trade,

in each case subject to certain adjustments determined by CME described above (in Adjustment Methodology), including the Cash Adjustment which shall be applied to each Forward Starting SOFR OIS, and applied according to the Published Methodology.

Each resulting Forward Starting SOFR OIS will:

- maintain the effective/maturity dates and fixed leg economic terms (excluding pay offset) of the original USD LIBOR Swap;
- include a payment offset (2D) added to both legs of the swap, consistent with market standard OIS conventions;
- include a single compensation fee to be paid the following New York business day in the form of the Cash Adjustment.

D: Conversion of USD LIBOR – Fed Funds Basis Swaps on the Primary Conversion Date

CME will convert each cleared trade in USD LIBOR – Fed Funds Basis Swaps that is open on the Primary Conversion Date into:

- a corresponding SOFR vs Fed Funds Basis Swap; and
- a Short-Dated LIBOR vs Fed Funds Basis Swap

in each case subject to certain adjustments determined by CME described above, including the Cash Adjustment which shall be applied to the corresponding SOFR vs Fed Funds Basis Swap, and applied according to the Published Methodology.

In each case, the Fed Funds leg will continue to use averaging and a rate cut-off and the SOFR leg will use compounding and a payment offset.

E: Conversion of Compounding Swaps

For the conversion of compounding USD LIBOR Swaps, CME will respect the representative LIBOR fixings of any seasoned compounding swaps:

- if the compounding USD LIBOR Swap is forward starting, with an effective date after the Index Cessation Effective Date, then the swap will be converted into only a Forward Starting SOFR OIS with the original payment frequencies on both legs. The Cash Adjustment shall be applied to the Forward Starting SOFR OIS;
- for any other cases:

- CME will book a Short-Dated USD LIBOR Swap to settle the representative LIBOR floating and fixed accruals;
- the resulting Forward Starting SOFR OIS will be effective at the end of the next floating coupon period and the daily compounded rate will be applied to all future floating periods;
- Fixed and float cash flows on the Short-Dated USD LIBOR Swap may not match the original USD LIBOR Swap.

F: Conversion approach to Swap Stub Periods

Stubs require special processing when converting USD LIBOR Swaps into Short-Dated USD LIBOR Swaps as there are different methods used to specify the original Floating Rate Option. CME's Published Methodology requires that all current stub periods will be restated as a USD LIBOR Zero Coupon Swap.

Forward starting stub periods will maintain the period start and end dates with a daily compounded overnight rate.

Secondary Conversion Date – Conversion Processes

A: USD LIBOR IRS excluded from Secondary Conversion

The following CME cleared USD LIBOR IRS open on the Secondary Conversion Date are excluded from the conversion process on the Secondary Conversion Date:

- (i) USD LIBOR Swaps that mature on the Secondary Conversion Date;
- (ii) USD LIBOR IRS where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date, but which do not settle prior to the Scheduled Final Representative USD LIBOR Publication Date;
- (iii) Short-Dated LIBOR vs Fed Funds Basis Swaps arising from the Primary Conversion; and
- (iv) Short-Dated USD LIBOR Swaps arising from the Primary Conversion.

B: Conversion of USD LIBOR Swaps submitted prior to the Secondary Conversion Date

With respect to any USD LIBOR Swap submitted for clearing after COB on the Primary Conversion Date but before COB on the Secondary Conversion Date (including Swaps that result from the exercise of a bilateral (uncleared) Swaption contract exercise and USD LIBOR vs Fed Funds Basis Swaps), at close of business on the Secondary Conversion Date CME will convert such USD LIBOR Swaps utilizing the applicable process applied by CME to relevant USD LIBOR Swaps on the Primary Conversion Date, as described above.

C: Conversion of Zero Coupon Swaps on the Secondary Conversion Date

CME will convert each CME cleared USD LIBOR Zero Coupon Swap open on the Secondary Conversion Date as follows:

- Forward starting Zero Coupon Swaps will be converted into a single Forward Starting SOFR OIS with payment at maturity;
- Seasoned Zero Coupon Swaps have representative USD LIBOR fixings and compounded floating legs that need to be accounted for in the replacement Forward Starting SOFR OIS:

- CME will keep the payment at maturity for both the floating and fixed leg (if applicable). A 2-day payment offset is applied to both coupon payments to stay consistent with standard SOFR OIS conventions;
- any accrued interest from past and current representative USD LIBOR periods is settled at maturity by adjusting the “known amount” on the fixed leg of the Forward Starting SOFR OIS;
- the replacement Forward Starting SOFR OIS will have adjusted notional to account for the previous compounding periods,

in each case subject to certain adjustments determined by CME described above (in Adjustment Methodology), including the Cash Adjustment which shall be applied to each Forward Starting SOFR OIS, and applied according to the Published Methodology.

Limitation of Clearing Support for USD LIBOR Swaps after Secondary Conversion Date

From COB on the Secondary Conversion Date, except for the limited exception noted below, CME will cease to accept the relevant USD LIBOR Swaps for clearing.

Until further notice by CME to market participants, in order to continue to support clearing of any USD LIBOR Swap that results from the exercise of a bilateral (uncleared) Swaption contract exercise after the Secondary Conversion Date, CME will accept for clearing any spot or forward starting USD LIBOR Swap that is submitted to CME for clearing following COB on the Secondary Conversion Date where the start date of such swap is on or after such date. At COB on the date of acceptance for clearing, CME will convert such USD LIBOR Swap contract utilizing the process applied by CME to forward starting USD LIBOR Swaps on the Primary Conversion Date, as described above.

Operational Overview of Conversion Processes

The operational processing steps for the Conversion processes are summarized below:

Methodology for Converting USD LIBOR Swaps

The Published Methodology for effecting the relevant Conversion processes was first made public in August 2022 on the CME website and was included in CME Submission 23-082 and is appended to this Clearing Advisory as Appendix 1.

Legal and Operational Characterization; Messaging and Reporting to SDR

In legal and contractual terms, each Conversion process will amend the terms of cleared trades in CME cleared USD LIBOR Swaps, converting the terms of each cleared trade to a standardized CME cleared SOFR OIS and, where applicable, a Short-Dated USD LIBOR Swap and/or relevant basis swap pair. From an operational perspective, each relevant Conversion will be processed by CME as a “termination” of each relevant USD LIBOR Swap and the establishment of “new” corresponding cleared trade(s) within the clearing system.

To reflect the operational processes within the clearing system, CME will send:

- a termination message to relevant CME Clearing Members in respect of the termination of each relevant converted USD LIBOR Swap; and
- a clearing confirmation message to relevant CME Clearing Members in respect of the establishment of any replacement swap(s).

As part of the relevant Conversion process, a subset of Trade IDs from each original USD LIBOR Swap will be carried over to the relevant resulting swaps. The CME Trade ID and USI/UTI are not carried over but, in order to identify the link between each original USD LIBOR Swap and the relevant resulting swaps CME will add a replacement Trade ID and Original Trade ID respectively in the History section of the clearing confirmation messages.

CME will report the close out of each USD LIBOR Swap and the establishment of each replacement swap in the account of the relevant position holder to the CME Swap Data Repository (“SDR”) under Part 45 of the CFTC’s Regulations. With regard to reporting data submitted to SDR in respect of each replacement swap, CME will populate the “Prior USI” field with the USI of the relevant original USD LIBOR Swap to reflect the nature of the Conversion process. For SDR reporting purposes, reporting rows will be generated and submitted to CME SDR terminating the USI of each original USD LIBOR Swap and CME will ensure that each replacement swap will be reported as a “New Trade.”

Examples of Cash Adjustment Amount Calculation and Processing

Calculation of Cash Adjustment Amount

The Cash Adjustment amount is necessary to account for the difference in valuation between the original USD LIBOR Swap and the combined valuation of the resulting replacement swap(s) on the relevant Conversion Date. The difference in the NPV of each original USD LIBOR Swap and the corresponding replacement swaps on the relevant Conversion Date represents a gain or loss to the relevant position holder in each case. In order to neutralize the transfer in value between position holders arising from the transition, CME will apply a Cash Adjustment amount equal and opposite to the change in NPV resulting from the transition to the resulting replacement swap(s).

The Cash Adjustment amount will be calculated by CME on each relevant Conversion Date as follows (the “Conversion Calculation”):

- On or shortly after COB on the relevant Conversion Date, the Clearing House will conduct a standard valuation calculation during the end of day clearing cycle, to determine the NPV for each relevant original USD LIBOR Swap subject to the relevant Conversion process on that date, calculated utilizing CME’s closing curve marks on the relevant Conversion Date for each position account and the ISDA Fallback Pricing Methodology.
- Upon establishment of each SOFR OIS and any Short-Dated USD LIBOR Swap, or such other replacement swap(s) within the clearing system, on or shortly after COB on the relevant Conversion Date, the Clearing House will conduct an additional calculation to determine the NPV for each SOFR OIS and any Short-Dated USD LIBOR Swap (or such other replacement swap(s)) calculated utilizing CME’s closing curve marks on the relevant Conversion Date for each position account.
- Note that the determination of the NPV of the original USD LIBOR Swap and the SOFR OIS and any Short-Dated USD LIBOR Swap (or such other replacement swap(s)) will be

- calculated on an “adjusted” basis, where the adjusted NPV in each case is the NPV less the present value of any fee or coupon payment due to bank on the following business day.
- The difference between the two NPV calculations for each original USD LIBOR Swap and the corresponding replacement swap(s) represents the change in NPV arising from the conversion of the reference rate exposure of that position from the USD LIBOR rate to SOFR.

The relevant Cash Adjustment amount to be applied to each resulting SOFR OIS / replacement swap in each position account shall be equal and opposite to the relevant change in NPV calculated by CME in the Conversion Calculation. As the Cash Adjustment for each SOFR OIS / replacement swap will be equal and opposite to the change in NPV calculated by CME, it may be a positive or negative amount depending on the position.

Payment of Cash Adjustment Amount

Where the holder of a resulting SOFR OIS / replacement swap(s) had benefited from a change in NPV, i.e. where the resulting swap(s) NPV is greater than the corresponding original USD LIBOR Swap NPV, the Cash Adjustment will be a negative amount equal to that change in NPV. The Cash Adjustment amount will be applied to the resulting SOFR OIS / replacement SOFR swap as an upfront fee which will be due and paid from the position holder (to the Clearing House as central counterparty and other party to the cleared trade), at the next clearing cycle following the relevant Conversion Date, during which cycle settlement variation for positions in the SOFR OIS / replacement SOFR swap will be determined and outstanding exposures and payments netted and settled in accordance with CME Rule 814 (“Settlements, Settlement Variation Payment, and Option Value”). Accordingly, where the holder of a resulting SOFR OIS experiences a negative change in NPV, the Cash Adjustment will be a positive amount and will be applied to the SOFR OIS as an upfront fee which will be due and paid to the position holder (from the Clearing House, as central counterparty and other party to the cleared trade).

Given that the change in NPV calculated by the Conversion Calculation is offset exactly by the Cash Adjustment amount, indicated by the figure in the “Net Cash Flow” column in the examples in the table below, the net cash flow with respect to the NPV change is zero on both a per account basis and an overall product basis for the Clearing House.

The Cash Adjustment process is a mandatory process that will apply in respect of cleared trades in affected USD LIBOR Swaps in scope of the relevant Conversion process on the relevant Conversion Date.

Cash Adjustment Examples

The example below demonstrates the operational processing of a Conversion for a hypothetical USD LIBOR Swap and the Cash Adjustment processes, reflecting the operational characterization of the process as a “termination” of the original USD LIBOR Swap and establishment of a “new” Forward Starting SOFR OIS and corresponding Short-Dated USD LIBOR Swap. As noted above, in legal terms, the Conversion is treated as an amendment of the terms of the relevant cleared trade.

As of COB on Friday, April 21, 2023

	Value Date	Cleared Trade ID	Floating Rate Option	Status	NPV	NPV Adj.*	Previous NPV Adj.	Variation Margin	Upfront Payment	Fee Type	Payment Date	Net Cash Flow
Original USD LIBOR Swap	04/21/2023	11224	USD-LIBOR	TERMINATED	0	0	59,000.00	-59,000.00	-	-	-	59,000.00

Short-Dated USD LIBOR Swap	04/21/2023	34563	USD-LIBOR	CLEARED	5,000.00	5,000.00	0	5,000.00	-	-	-	5,000
Forward Starting SOFR OIS	04/21/2023	67896	USD-SOFR-OIS Compound	CLEARED	55,000.00	53,000.00	0	53,000.00	2,000.00	UPFRONT_FEE	04/24/2023	55,000.00

* NPV Adj. reflects the value of the swap removing any fee payments to be made the following business day. In the event of multiple replacement swaps, all Adjusted NPVs are added to calculate the Cash Adjustment.

*Cash Adjustment Calculation Example**

Original USD LIBOR Swap Valuation NPV Adj. as at COB April 21, 2023 = 60,000.00
 Forward Starting SOFR OIS Valuation + Short-Dated USD LIBOR Swap Valuation (NPV Adj. as at 04/21/2023) = 5,000.00 + 53,000.00 = 58,000.00
 PnL Change = (53,000.00 + 5,000.00) – 60,000.00 = - 2,000.00
 Cash Adjustment = Change in Adjusted NPV = 2,000.00

* Note: In this example, the Cash Adjustment offsets the gain of 2,000.00 between the Original USD LIBOR Swap and the combined valuation of the Forward Starting SOFR OIS and the Short-Dated USD LIBOR Swap

Resulting swaps as of COB on Next Value Date – Variation Margin example

Value Date	Cleared Trade ID	Floating Rate Index	Status	NPV	NPV Adj.	Previous NPV Adj.	Variation Margin	Upfront Payment	Fee Type	Payment Date	Net Cash Flow
04/24/2023	34563	USD LIBOR	CLEARED	5,500.00	5,500.00	5,000.00	500.00	-	-	-	500.00
04/24/2023	67896	USD-SOFR-OIS Compound	CLEARED	53,500.00	53,500.00	53,000.00	500.00	-	-	-	500.00

Calculation Breakdown (04/21/2023)

Original USD LIBOR Swap VM = NPV Adj. – Previous NPV Adj.
 = 0 - 59,000.00 = -59,000.00

PnL Change = NPV Adj. (Forward Starting SOFR OIS) + NPV Adj. (Short Dated USD LIBOR swap) – NPV Adj. Original USD LIBOR Swap
 = (53,000.00 + 5,000.00) – 60,000.00 = - 2,000.00

Cash Adjustment Amount = (NPV Adj. of Original USD LIBOR Swap – NPV Adj. of Forward Starting SOFR OIS + NPV Adj. (Short Dated USD LIBOR swap))
 = 60,000.00 – (5,000.00 + 53,000.00) = 2,000.00

NPV Adj. (Forward Starting SOFR OIS) = NPV – Upfront Payment
 = 55,000.00 – (2,000.00) = 53,000.00

CME’s approach to “compensation” arising from change in NPV through the Cash Adjustment process is widely supported by market participants. The process has been discussed with Clearing Members and their customers and is understood to be consistent with the needs and expectations of market participants, and consistent with wider industry initiatives.

Clearing of Forward Starting SOFR OIS and Short-Dated USD LIBOR Swaps

Each Forward Starting SOFR OIS and Short-Dated USD LIBOR Swap (and any other replacement swap arising out of a Conversion process) will be cleared by CME in accordance with the CME Rules.

From the completion of the end of day clearing cycle on the relevant Conversion Date, each swap resulting from any Conversion process will for the remaining lifecycle of the relevant cleared trade be subject to valuation and settlement variation (as defined in the CME Rules) for each clearing cycle following the relevant Conversion Date.

From the completion of the end of day clearing cycle on the relevant Conversion Date, each Short-Dated USD LIBOR Swap will be cleared by CME and shall not be subject to any Conversion or Fallback process under the CME Rules.

Limitation of Acceptance for Clearing for USD LIBOR Referencing Swaps Following Secondary Conversion Date

As noted above, from close of business on the Secondary Conversion Date, in order to support ongoing clearing and conversion of USD LIBOR Swap trades resulting from exercise of bilateral (uncleared) Swaption contracts after the Secondary Conversion Date, CME will continue to accept USD LIBOR Swaps for clearing where the Start Date of the submitted USD LIBOR Swap is on or after the Cleared Date (date of submission) of the submitted USD LIBOR Swap, which must be on or after close of business on the Secondary Conversion Date.

CME will implement validation processes that shall apply from the Secondary Conversion Date which will provide that:

- If the Start Date of the submitted USD LIBOR Swap is on or after the Cleared Date, the trade will be accepted for clearing by CME; and
- If the Start Date of the submitted USD LIBOR Swap is before the Cleared Date, the trade will not be accepted for clearing by CME.

Where an eligible USD LIBOR Swap is submitted for clearing with a Cleared Date that is on or after the Index Cessation Effective Date (a "Residual Swap"), immediately on acceptance of the trade for clearing CME shall be deemed to apply the Permanent Cessation Fallbacks in CME Rule 90102.H. and shall amend the terms of the Residual Swap such that the references to USD LIBOR as the Floating Rate Option rate shall be deemed to refer to the SOFR fallback rate as the successor floating rate option to the USD LIBOR rate of such Residual Swap for the purposes of clearing the trade prior to conversion at COB.

At COB on the date of acceptance for clearing by CME of such Residual Swap, CME will apply the Conversion process to such trade to convert the Residual Swap into a corresponding Forward Starting SOFR OIS, utilizing the methodology for the relevant Primary Conversion Date.

Amendment to Primary Conversion Date in Limited Circumstances

CME reserves the right to amend the proposed Primary Conversion Date in its sole and absolute discretion prior to the Primary Conversion in limited circumstances, for example, where implementation of the conversion process on the previously communicated date could, in the opinion of the Clearing House, result in an unacceptable level of operational or market disruption or where financial stability issues could threaten

the orderly transition. In such circumstances, CME will communicate the amended Primary Conversion Date to market participants as soon as practicable upon making such determination.²⁶

Fees for USD LIBOR Conversion Process

CME will apply a transaction fee per line item for conversion of any CME cleared interest rate swaps that reference USD LIBOR (a “Conversion Fee”). In each case the Conversion Fee for Clearing Member House positions shall be a fee of \$10 and the Conversion Fee for Customer positions shall be a fee of \$25 which shall be applied by the Clearing House per line item subject to the relevant Conversion and shall apply on the resulting Forward Starting SOFR OIS transactions.²⁷

Fee Type	Trade Types	Products	Source, Terminate Reason (TR), Create Reason (CR)	HOUSE FM / NONFM	CUSTOMER Standard Client Schedule
SOFR Conversion Fee	All	All	CR = Index Conversion	\$10 per line item*	\$25 per line item*

*This fee will be charged on the resulting SOFR referencing trades, except for Short-Dated USD LIBOR Swaps (or the terminated LIBOR swaps) which will not be charged.

For bilateral swaption exercises that result in a Forward Starting SOFR OIS under the legacy index reference rate, CME will conduct a daily conversion of such trades to SOFR OIS and apply a charge of \$10 (for House positions) and \$25 (for Customer positions) per converted trade to the position and to which new trade clearing fees apply.

CME will apply a Conversion Fee of \$10 for each House Forward Starting SOFR OIS and a Conversion Fee of \$25 for each Customer Forward Starting SOFR OIS that is established as a result of the relevant Conversion process in each case.

Implementation of USD LIBOR Conversion

This Advisory Notice sets out the binding rules and operational processes under which CME Clearing will implement each element of the USD LIBOR Conversion, including the modification and operational close out of USD LIBOR IRS Contracts and the establishment of replacement corresponding USD SOFR standardized OIS interest rate swaps and, where applicable, Short-Dated USD LIBOR Swaps, which will be implemented by CME with respect to open cleared trades in affected CME cleared products at the relevant Conversion Date. The USD LIBOR Conversion is a mandatory process and the terms set out below

²⁶ CME Clearing has identified a provisional contingency fallback date of May 12, 2023, in the event that the April 21, 2023, date for the Primary Conversion is determined to be unsuitable.

²⁷ The Conversion Fee shall not apply to: Short-Dated USD LIBOR Swaps resulting from the Conversion process or to the termination of USD LIBOR Swaps. For bilateral swaption exercises that result in a cleared swap under the legacy LIBOR index, a Conversion Fee corresponding to the appropriate account type per converted trade will be applied to the position in addition to the new trade clearing fees.

in this Clearing Advisory will apply to all cleared trades in USD LIBOR Swaps from April 21, 2023, subject to regulatory review.

Capitalized terms not defined below shall have the meaning set out in the CME Rules.

CME Cleared Contracts Subject to the USD LIBOR Conversion and this Advisory Notice

The Conversion processes will apply to all cleared trades in CME cleared Interest Rate Swaps that:

- (i) reference USD LIBOR as the interest rate swap rate option (the "Floating Rate Option")²⁸;
- (ii) are open at close of business ("COB") on the relevant Conversion Date; and
- (iii) do not mature on the relevant Conversion Date,

(the "Affected Contracts").²⁹

Terms and Operation of Conversion Processes

Primary Conversion

1. The "Primary Conversion Date" shall be April 21, 2023 except where the Clearing House determines in its sole and absolute discretion prior to the Primary Conversion process that implementation of the conversion process on April 21, 2023, or such other previously communicated date, could:
 - (a) result in an unacceptable level of operational or market disruption, or
 - (b) threaten the orderly transition due to issues of financial stability,

in which case the Clearing House shall determine an alternative date as the "Primary Conversion Date" in its sole and absolute discretion prior to the Primary Conversion and shall communicate the revised Primary Conversion Date to market participants as soon as practicable upon making such determination.

2. Except with respect to cleared USD LIBOR vs Fed Funds basis swaps to which paragraph 3 below applies, or USD LIBOR IRS to which paragraph 4 below applies, at or shortly after COB on the Primary Conversion Date, CME Clearing will amend the terms of each cleared trade in USD LIBOR IRS that is open at COB on the Primary Conversion Date in the account of the relevant position holder (each such cleared trade, a "Pre-Conversion Swap") such that the cleared trade shall be converted into:
 - (a) a corresponding CME cleared Overnight Index Swap ("OIS") referencing the Secured Overnight Financing Rate ("SOFR") interest rate benchmark, with start date matching the start of the floating period following July 3, 2023 (each, a "SOFR OIS Conversion Swap"); and

²⁸ USD LIBOR Swaps include USD LIBOR vs Fed Funds basis swaps and any CME cleared IRS referencing "USD-LIBOR-BBA" or "USD LIBOR" as the Floating Rate Option.

²⁹ Note that forward rate agreements referencing USD LIBOR ("FRAs") are excluded from the scope of the USD LIBOR Conversion. CME has ceased clearing USD LIBOR FRAs with effective dates after June 30, 2023, removing FRAs from the conversion scope. USD LIBOR FRAs with effective dates on or prior to this date remain eligible for clearing. USD LIBOR IRS where the last USD LIBOR fixing date is before the Scheduled Final Representative USD LIBOR Publication Date but which do not settle before such date are also excluded from the Conversion processes.

(b) a short-dated USD LIBOR replacement swap accounting for LIBOR floating period coupons on the Pre-Conversion Swap, with start and end dates matching the representative LIBOR floating periods with unsettled coupons (each, a "Short-Dated LIBOR Swap"),

(each, a "Conversion Swap"), in the position account of the relevant position holder, with the terms of each such Conversion Swap determined according to CME's published methodology.

3. With respect to each cleared USD LIBOR vs Fed Funds basis swap that is open at COB on the Primary Conversion Date in the account of the relevant position holder, CME Clearing will amend the terms of each such cleared trade such that the cleared trade shall be converted into:

(a) a corresponding CME cleared SOFR vs Fed Funds Basis Swap, with start date matching the start of the floating period following July 3, 2023; and

(b) a short-dated USD LIBOR vs Fed Funds Basis Swap replacement swap with start and end dates matching the representative USD LIBOR floating periods with unsettled coupons,

in the position account of the relevant position holder, with the terms of such replacement basis swaps determined according to CME's published methodology.

Secondary Conversion

4. With respect to each cleared USD LIBOR IRS that is a Zero Coupon Swap that is open at COB on July 3, 2023 (the "Secondary Conversion Date"), at or shortly after COB on the Secondary Conversion Date, CME Clearing will amend the terms of each such cleared trade in the account of the relevant position holder (each such cleared trade, a "Pre-Conversion Swap") such that the cleared trade shall be converted into a corresponding CME cleared OIS referencing the SOFR interest rate benchmark, with start date matching the start of the floating period following July 3, 2023 (a "SOFR OIS Conversion Swap") in the position account of the relevant position holder, with the terms of such SOFR OIS Conversion Swap determined according to CME's published methodology.

5. With respect to each cleared USD LIBOR IRS that is accepted for clearing by CME after COB on the Primary Conversion Date and prior to COB on the Secondary Conversion Date, at or shortly after COB on the Secondary Conversion Date, CME Clearing will amend the terms of each such cleared trade in the account of the relevant position holder (each such cleared trade, a "Pre-Conversion Swap") such that the cleared trade shall be converted into:

(a) a corresponding CME cleared Overnight Index Swap ("OIS") referencing the Secured Overnight Financing Rate ("SOFR") interest rate benchmark, with start date matching the start of the floating period following July 3, 2023 (each, a "SOFR OIS Conversion Swap"); and

(b) a short-dated USD LIBOR replacement swap accounting for LIBOR floating period coupons on the Pre-Conversion Swap, with start and end dates matching the

representative LIBOR floating periods with unsettled coupons (each, a “Short-Dated LIBOR Swap”),

(each, a "Conversion Swap"), in the position account of the relevant position holder, with the terms of each such Conversion Swap determined according to CME's published methodology.

6. With respect to each cleared USD LIBOR vs Fed Funds Basis Swap that is open at COB on the Secondary Conversion Date in the account of the relevant position holder, CME Clearing will amend the terms of each such cleared trade such that the cleared trade shall be converted into:

- (a) a corresponding CME cleared SOFR vs Fed Funds Basis Swap, with start date matching the start of the floating period following July 3, 2023; and

- (b) a short-dated USD LIBOR vs Fed Funds Basis Swap replacement swap with start and end dates matching the representative LIBOR floating periods with unsettled coupons,

(each, a “Conversion Swap”), in the position account of the relevant position holder, with the terms of such replacement basis swaps determined according to CME's published methodology.

Daily Conversions after Secondary Conversion Date

7. With respect to each cleared USD LIBOR IRS that:

- (a) has a start date on or after COB on the Secondary Conversion Date; and

- (b) is accepted for clearing by CME after COB on or after the Secondary Conversion Date,

at or shortly after COB on the date of acceptance of the trade for clearing, CME Clearing will amend the terms of each such cleared trade in USD LIBOR IRS in the account of the relevant position holder (each such cleared trade, a "Pre-Conversion Swap") such that the cleared trade shall be converted into a corresponding CME cleared OIS referencing the SOFR interest rate benchmark (a "SOFR OIS Conversion Swap") in the position account of the relevant position holder, with the terms of such SOFR OIS Conversion Swap determined according to CME's published methodology.

Conversion Processing

8. At or shortly after COB on, as applicable:

- (a) the Primary Conversion Date;

- (b) the Secondary Conversion Date; or

- (c) each Business Day following the Secondary Conversion Date on which CME accepts for clearing USD LIBOR IRS that satisfy the requirements in paragraph 7 above,

(each a “Conversion Date”),

with respect to each relevant position account, CME will calculate the difference in net present value (“NPV”) at COB on such relevant Conversion Date (at closing curve levels on the relevant Conversion Date) between:

- (i) each Pre-Conversion Swap subject to Conversion on such Conversion Date; and
- (ii) the corresponding Conversion Swap(s),

(the “Conversion Calculation”).

9. CME Clearing will determine settlement variation for each Conversion Swap on the relevant Conversion Date (at closing curve levels on the relevant Conversion Date) for valuation for the end of day clearing cycle on the relevant Conversion Date.
10. At the next end of day clearing cycle following the relevant Conversion Date, for each Conversion Swap, CME Clearing will:
 - (a) apply as an upfront fee to each SOFR OIS Conversion Swap (or Conversion Swap, as applicable) an offsetting cash compensation amount that is equal and opposite to the difference in NPV between the Conversion Swap(s) and the corresponding Pre-Conversion Swap, as determined by CME Clearing during the Conversion Calculation (the “Cash Adjustment”):
 - i. where the Conversion Calculation determines that the NPV of the relevant Conversion Swap(s) is greater than the NPV of the corresponding Pre-Conversion Swap, the Cash Adjustment applied to the SOFR OIS Conversion Swap will be negative;
 - ii. where the Conversion Calculation determines that the NPV of the relevant Conversion Swap(s) is less than the NPV of the corresponding Pre-Conversion Swap, the Cash Adjustment applied to the SOFR OIS Conversion Swap will be positive; and
 - (b) settle outstanding exposures and payments from the end of day clearing cycle (including for the avoidance of doubt, settlement variation and the Cash Adjustment) in accordance with CME Rule 814. The relevant Cash Adjustment will offset the change in NPV for the relevant Conversion Swap(s) such that the net cash flow in respect of the Conversion will be zero for each cleared trade in such Affected Contract per account.
11. Following the relevant Conversion Date, each Conversion Swap will be cleared by CME subject to the terms of the Rules applicable to USD SOFR IRS and this Clearing Advisory and any Short-Dated USD LIBOR Swap will be cleared by CME subject to CME Rulebook and the terms of this Clearing Advisory.
12. CME will account for the relevant ISDA Spread Adjustment published by Bloomberg Index Services Limited (the “ISDA Spread Adjustment”) in determining the floating amount of each SOFR OIS Conversion Swap in each case in accordance with CME’s published methodology.

Conversion Process Fees

13. CME will apply to each resulting SOFR OIS Conversion Swap (or such other Conversion Swap, as determined by CME) a fixed conversion surcharge of:
 - (a) \$10 for each SOFR OIS Conversion Swap that is established as a result of the Conversion process in respect of each relevant Pre-Conversion Swap in Clearing Member House accounts; and
 - (b) \$25 for each SOFR OIS Conversion Swap that is established as a result of the Conversion process in respect of each relevant Pre-Conversion Swap for Customer positions, (each, the "Conversion Fee").

Miscellaneous Provisions

14. Except as expressly stated in this paragraph in relation to IRS Contracts falling within paragraph 7 ("Residual Swaps"), CME will not apply the Permanent Cessation Fallbacks in CME Rule 90102.H (Application of Permanent Cessation Fallbacks) in respect of any Affected Contract or position resulting from the USD LIBOR Conversion process. On acceptance for clearing of a Residual Swap on or after COB on the Secondary Conversion Date, for the purposes of clearing such Residual Swap prior to conversion, CME will amend the terms of the Residual Swap such that any reference to USD LIBOR shall be deemed to be a reference to the relevant nominated successor Fallback Rate published by Bloomberg Index Services Limited for such Residual Swap prior to conversion at COB in accordance with paragraph 7.
15. CME shall make such further amendments to the terms of Affected Contracts as it deems necessary in its sole and absolute discretion to implement the terms of this Advisory Notice.
16. The terms of this Advisory Notice and each relevant Conversion process are binding on Clearing Members and position holders in all Affected Contracts, effective April 21, 2023 [subject to regulatory review]. To the extent that there is any conflict between the Rules and the terms of this Advisory Notice with respect to any Conversion process, this Advisory Notice shall prevail. For the purposes of this Advisory Notice, Rule 90103.A (Contract Modifications; CME Rules) shall not apply to the extent it purports to restrict modification to the terms of IRS Contracts that are the subject of this Advisory Notice.

Each Conversion process on a relevant Conversion Date is a mandatory process. Each Conversion and the relevant Cash Adjustment in each case will therefore apply to all positions in cleared trades in relevant Affected Contracts on the relevant Conversion Date, as set out in this Advisory Notice. Market participants should consider the terms and impact of each relevant Conversion as set out in this Advisory Notice and take appropriate action prior to the relevant Conversion Date. Position holders that do not wish to participate in a Conversion process must close out any positions in relevant Affected Contracts prior to the relevant Conversion Date.

Limitation of Acceptance for Clearing for Affected Contracts Following Secondary Conversion Date

From COB on the Secondary Conversion Date, with the exception of Residual Swaps that meet the relevant requirements in paragraph 7 above, after COB on the Secondary Conversion Date, CME Clearing will cease to accept for clearing trades in the Affected Contracts.

From COB on the Secondary Conversion Date, CME Clearing will continue to accept Residual Swaps that meet the requirements in paragraph 7 above. Such trades will be subject to the relevant Conversion process described above in paragraphs 7 to 10.

The list of IRS Rate Options in CME Rule 90102.E.1. (Interest Rate Swaps Rate Options) in Chapter 901 (“Interest Rate Swaps Contract Terms”) of the CME Rulebook will be updated accordingly from close of business on June 30, 2023, as detailed in CME Submission 23-082.

Operational Information

CME Clearing will provide the following information in relation to Affected Contracts:

- End of Day Trade Register report made available by the Clearing House only to IRS clearing members and clients via an sFTP site;
- CME OTC IRS Bookkeeping document, made available to IRS Clearing Members and their customers on request;
- FpML Confirmations for Affected Contracts and Conversion Swaps; and
- LIBOR to SOFR Cash Adjustment Report made available by the Clearing House only to IRS Clearing Members and clients via an sFTP site, illustrating the NPV for each original USD LIBOR Swap and the revised NPV for each Conversion Swap and the Cash Adjustment at the trade level for each position account. This report will be available as an “Indicative Analysis Report” in the CME Production Environment on a daily basis beginning in January 2023 until the Secondary Conversion Date. The actual Cash Adjustment amounts will be indicated in the IRS Trade Register at COB on the relevant Conversion Date.

To reflect the operational processes within the clearing system, CME will send:

- a termination message to relevant CME Clearing Members in respect of the termination of each relevant converted USD LIBOR Swap; and
- a clearing confirmation message to relevant CME Clearing Members in respect of the establishment of each new relevant Conversion Swap.

As part of the relevant Conversion process, a subset of Trade IDs from each original USD LIBOR Swap will be carried over to the relevant resulting Conversion Swap(s). The CME Trade ID and USI/UTI are not carried over but, in order to identify the link between each original USD LIBOR Swap and the relevant resulting Conversion Swap(s), CME will add a replacement Trade ID and Original Trade ID respectively in the History section of the clearing confirmation messages.

Reporting to SDR

CME will report the close out of each USD LIBOR Swap and the establishment of each Conversion Swap in the account of the relevant position holder to the CME SDR under Part 45 of the CFTC’s Regulations. With regard to reporting data submitted to SDR in respect of each Conversion Swap, CME will populate the “Prior USI” field with the USI of the relevant original USD LIBOR Swap to reflect the nature of the Conversion process. For SDR reporting purposes, reporting rows will be generated and submitted to CME SDR

terminating the USI of each original USD LIBOR Swap and CME will ensure that each Conversion Swap will be reported as a “New Trade.”

Additional details regarding the Conversion may be viewed in ***CME Submission No. 23-082***.

Inquiries regarding the aforementioned may be directed to:

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Steve Dayon - OTC Products	steven.dayon@cmegroup.com	312.466.4447

Appendix 1 to Clearing Advisory Notice

Published Methodology for effecting the relevant USD LIBOR Conversion processes:

<https://www.cmegroup.com/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>

**Exhibit 3
CME Rulebook**

(additions underscored; deletions ~~overstruck~~)

**Chapter 901
Interest Rate Swap Contract Terms**

90102. CONTRACT TERMS

90102.E. Rate Options

90102.E.1. Interest Rate Swaps Rate Options

With respect to an IRS Contract, the Floating Rate Option elected by the IRS Clearing Participant in accordance with Rule 90002.F from the following Floating Rate Options names specified in the 2006 ISDA Definitions or Floating Rate Options names specified in the ISDA Definitions Floating Rate Matrix, or combination of rate options:

	2006 ISDA Definitions Floating Rate Option (“FRO”) Name	2021 ISDA Definitions FRO Name
1.	USD-LIBOR-BBA****	USD-LIBOR****
****As set out in CME Clearing Advisory Notice [], effective July 3, 2023, CME will cease to accept for clearing IRS Contracts referencing USD-LIBOR-BBA or USD-LIBOR except where the start date of such swap is on or after July 3, 2023.		
2.	USD-Federal Funds-H.15-OIS-COMPOUND	USD-Federal Funds-OIS Compound
3.	USD-Federal Funds-H. 15	USD-Federal Funds
4.	EUR-EURIBOR-Reuters	EUR-EURIBOR
5.	EUR-EURIBOR-Telerate (as defined in the 2000 ISDA Definitions, as published by ISDA)	Not applicable
6.	GBP-LIBOR-BBA* *As set out in CME Clearing Advisory Notice 21-434, effective January 4, 2022, CME will cease to accept for clearing IRS Contracts referencing GBP-LIBOR-BBA or GBP-LIBOR except where the start date of such swap is on or after January 4, 2022.	GBP-LIBOR*
7.	GBP-SONIA-COMPOUND	GBP-SONIA-OIS Compound
8.	JPY-LIBOR-BBA** **As set out in CME Clearing Advisory Notice 21-434, effective January 4, 2022, CME will cease to accept for clearing IRS Contracts referencing JPY-LIBOR-BBA or JPY-LIBOR except where the start date of such swap is on or after January 4, 2022.	JPY-LIBOR**
9.	JPY-TONA-OIS-COMPOUND	JPY-TONA-OIS Compound
10.	CHF-LIBOR-BBA*** ***As set out in CME Clearing Advisory Notice 21-434, effective January 3, 2022, CME will cease to accept for clearing IRS Contracts referencing CHF-LIBOR-BBA or CHF-LIBOR except where the start date of such swap is on or after January 3, 2022.	CHF-LIBOR***
11.	CAD-BA-CDOR	CAD-CDOR
12.	CAD-CORRA-OIS-COMPOUND	CAD-CORRA-OIS Compound
13.	AUD-BBR-BBSW	AUD-BBSW

14.	AUD-AONIA-OIS-COMPOUND	AUD-AONIA-OIS Compound
15.	SEK-STIBOR-SIDE	SEK-STIBOR
16.	DKK-CIBOR-DKNA13	DKK-CIBOR
17.	DKK-CIBOR2-DKNA13	DKK-CIBOR2
18.	NOK-NIBOR-NIBR	NOK-NIBOR
19.	NOK-NIBOR-OIBOR	NOK-NIBOR
20.	HKD-HIBOR-HKAB	HKD-HIBOR
21.	NZD-BBR-FRA	NZD-BKBM FRA
22.	SGD-SOR-VWAP	SGD-SOR
23.	HUF-BUBOR-Reuters	HUF-BUBOR
24.	PLN-WIBOR-WIBO	PLN-WIBOR
25.	CZK-PRIBOR-PRBO	CZK-PRIBOR
26.	ZAR-JIBAR-SAFEX	ZAR-JIBAR
27.	MXN-TIIE-Banxico	MXN-TIIE
28.	USD-SOFR-COMPOUND	USD-SOFR-OIS Compound
29.	EUR-EuroSTR-COMPOUND	EUR-EuroSTR-OIS Compound
30.	CHF-SARON-OIS-COMPOUND	CHF-SARON-OIS Compound
31.	USD-BSBY	USD-BSBY
32.	Not supported	SGD-SORA-OIS Compound

[Remainder of Rule unchanged.]

Exhibit 4
CME Methodology for USD LIBOR Transition

<https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-usd-libor-cleared-swaps.pdf>