

TO: Clearing Member Firms  
Back Office Managers

DATE: July 1, 2024

FROM: CME Clearing

NOTICE #: 24-185

SUBJECT: **Modification of Cleared Over-the-Counter (“OTC”) Interest Rate Swap Products Referencing the Bloomberg Short-term Bank Yield Index (“BSBY”) and Limitation of Acceptance for Clearing**

### **Background**

On November 15, 2023, Bloomberg Index Services Limited (“BISL”), the administrator of BSBY, announced the future permanent cessation of the BSBY index and the publication of all rates for all BSBY tenors to take effect on Friday, November 15, 2024 (the “BSBY Cessation Date”), immediately following publication of the rate for each BSBY tenor (the “BISL Announcement”). The BISL Announcement also confirmed that BISL would not be recommending a fallback replacement rate for BSBY.<sup>1</sup>

In response to the BISL Announcement, on November 20, 2023, the International Swaps and Derivatives Association, Inc. (“ISDA”) published a statement, confirming that the BISL Announcement constitutes an “Index Cessation Event” for the purposes of the relevant ISDA definitions in respect of all BSBY settings referenced in derivative contracts incorporating the relevant ISDA terms. ISDA further confirmed that, in the absence of a recommended fallback rate for BSBY nominated by BISL, the relevant ISDA terms would apply to determine the alternative rate which will apply in respect of the USD-BSBY floating rate option under affected contracts from the “Index Cessation Effective Date” of Monday, November 18, 2024.<sup>2</sup> However, unlike previous ISDA fallback conversions for IBORs, in the absence of a single nominated successor rate for the USD-BSBY floating rate option in contractual fallbacks from the BSBY Cessation Date for bilateral derivative agreements, the chosen contractual fallback rate may differ as agreed between market participants and relevant adopted fallback language.

As a result of the scheduled cessation of the BSBY rates, relevant market participants are required to ensure that contractual fallbacks should be implemented in bilateral uncleared, cleared and exchange traded derivative markets.

CME cleared BSBY IRS Contracts (the “Affected BSBY Swaps”) currently incorporate the ISDA “fallback” provisions from the 2021 ISDA Definitions.<sup>3</sup> However, following industry consultation and the successful

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<sup>1</sup> See BISL announcement: <https://assets.bbhub.io/professional/sites/10/BSBY-Future-Cessation-Announcement-pdf>

<sup>2</sup> The “Index Cessation Effective Date” is the first date on which BSBY would ordinarily have been published or provided and will no longer be published or provided. See ISDA statement available at: <https://www.isda.org/a/vbqgE/Future-Cessation-of-the-Bloomberg-Short-Term-Bank-Yield-Index-Final.pdf>

<sup>3</sup> In January 2021, 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 GBP, CHF and JPY LIBORs. 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 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 in CME Rule 90102.H (“Application of Permanent Cessation Fallbacks”), replacing those substantially equivalent provisions contained in the ISDA IBOR Fallbacks Supplement and subsequent additional supplements by ISDA.

implementation of previous IBOR conversion processes effected by CME, rather than rely on existing contractual fallbacks in CME Rule 90102.H. (“Application of Permanent Cessation Fallbacks”) for BSBY IRS on the “Index Cessation Effective Date”, CME will, subject to regulatory review:

- undertake a CCP-led conversion of each relevant Affected BSBY Swap into:
  - where applicable, a corresponding short-dated CME cleared BSBY IRS to account for remaining floating and fixed coupons under the original swap scheduled to be published on or prior to the BSBY Cessation Date, and
  - a corresponding CME cleared forward starting overnight index swap (“OIS”) referencing the Secured Overnight Financing Rate (“SOFR”) interest rate benchmark that will maintain the original swap’s fixed rate and maturity, replace the BSBY floating rate with daily compounding SOFR plus a CME-calculated fallback spread adjustment (described in more detail below) and will apply a 2 day payment offset to both the fixed and floating legs, to be effective on the expiry of the short-dated replacement BSBY IRS;

to take effect following close of business on Friday, July 12, 2024<sup>4</sup> (the “Conversion Date”), (the “BSBY Conversion”);

- implement a cash adjustment in the form of an upfront fee which will be included on the forward starting SOFR OIS to account for valuation differences between the legacy BSBY IRS (valued under CME’s conversion pricing methodology) and the corresponding replacement swaps arising from the BSBY Conversion; and
- limit clearing support for IRS referencing BSBY following the Conversion Date, after which CME shall accept for clearing only BSBY IRS with fixings scheduled to be published prior to or on the BSBY Cessation Date and which swaps shall be supported until expiration, (the “BSBY Transition”), to be effective following close of business (“COB”) on Friday, July 12, 2024.

The conversion processes that form the BSBY Transition have been determined by CME based on extensive discussions with market participants.

This Clearing Advisory sets out the terms of the BSBY Transition and shall be binding on Clearing Members and position holders of CME cleared IRS Contracts in Affected BSBY Swaps from close of business on July 12, 2024.

### **Summary of Conversion Process**

Subject to regulatory review, CME will transition CME cleared BSBY Swaps by converting each Affected BSBY Swap on the Conversion Date as specified in the table below by category of cleared contract, utilizing a mandatory conversion process, as summarized below:

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<sup>4</sup> As with previous OTC IRS conversions, CME proposes to reserve the right in limited circumstances to amend the 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.

Date	CME cleared swaps subject to Conversion	Output of Conversion
July 12, 2024	BSBY IRS that contain any fixing dates scheduled to be published after November 15, 2024*.  *Any BSBY IRS which has a final fixing scheduled to be published before COB November 15, 2024 will be left to mature and will not undergo conversion.	For Seasoned Swaps: <ul style="list-style-type: none"> <li>• Short-dated BSBY Swap accounting for all remaining unsettled BSBY fixings that are scheduled to be published prior to the BSBY Cessation Date in respect of the original BSBY Swap; and</li> <li>• Forward Starting SOFR OIS with start date of the maturity date of the Short-Dated BSBY Swap</li> <li>• Fixed cash flows and compounded cash flows on the replacement swaps may not match the original BSBY Swap in some cases (see examples)</li> </ul>
		For Forward Starting Swaps with an effective date after the BSBY Cessation Date: <ul style="list-style-type: none"> <li>• Forward Starting SOFR OIS with effective/maturity dates and fixed leg economic terms (excluding payment offset) of original BSBY Swap               <ul style="list-style-type: none"> <li>• Single compensation fee is included and paid the following New York business day</li> <li>• 2-day payment offset is added to both legs of the SOFR OIS, consistent with market standard OIS conventions</li> </ul> </li> </ul>

#### Calculation of the fallback spread adjustment – CME methodology

BSBY was originally developed by BISL in response to demand from cash market participants for an interest rate with a credit-sensitive spread with a forward-looking term structure to track the US wholesale unsecured funding market and supplement SOFR. BSBY is a credit sensitive index that measures the average yields at which large, global banks access USD senior unsecured marginal wholesale funding. Based on feedback received from market participants during CME’s consultation process, CME considers SOFR to be the most appropriate successor reference rate to BSBY for CME cleared BSBY swaps. Unlike previous IBOR conversions effected by CME, in the absence of an industry nominated successor rate for BSBY, there is also no industry agreed pricing methodology for the calculation and processing of contractual fallbacks for BSBY swaps to reference SOFR, nor is there an industry agreed or published “spread adjustment” to enable the fallback / conversion from BSBY to SOFR reference rates.<sup>5</sup> For previous IBOR conversions, such as the USD LIBOR conversion in June 2023, CME utilized the relevant ISDA “Fallback Rate” (which replaced the relevant affected IBOR rate in the contract) as part of the IBOR conversion methodology, which rate was in each case calculated by BISL according to the industry-agreed pricing methodology published by ISDA (the “ISDA Fallback Pricing Methodology”), based on the combination of the following components for each relevant tenor:

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

<sup>5</sup> The “spread adjustment” in each case for ISDA’s IBOR fallbacks provided an important part of the overall fallback rate and was designed to reflect a portion of the structural differences between relevant IBORs and the corresponding RFR used as the fallback rate. For example, where an IBOR incorporates a credit risk premium but the corresponding RFR is “risk-free” then the purpose of the relevant spread adjustment was to account for this credit risk premium, calculated using a historical median approach over a five-year lookback period from the date of the announcement on the IBOR cessation / non-representativeness. Under this protocol, the fallback for each relevant IBOR setting was based on the relevant RFR compounded in arrears to address the differences in tenor, plus the relevant spread adjustment, calculated by BISL in each case. The methodology was agreed by ISDA following multiple industry consultations.

In the absence of an industry nominated successor rate for BSBY or corresponding ISDA spread adjustment or fallback rate for BSBY contractual fallbacks, CME has been required to develop its own conversion pricing approach and methodology for the purposes of converting CME-cleared BSBY swaps into corresponding SOFR OIS. Based on market participant feedback during the consultation process, CME has determined that the CME BSBY conversion pricing and swap conversion methodology should be based on the same principles as previous IBOR conversions, utilizing a conversion pricing approach based on the ISDA Fallback Pricing Methodology and a CME-calculated spread adjustment and fallback rate for BSBY based on the same methodology utilized by BISL for the calculation of ISDA Spread Adjustments and publication of IBOR fallback rates for previous IBOR contractual fallbacks, for example, GBP/JPY/CHF LIBOR, USD LIBOR and CAD CDOR contractual fallbacks.

In connection with this approach, CME has calculated fallback spreads to adjusted SOFR (daily compounded SOFR)<sup>6</sup> for each of the 1M and 3M BSBY tenors, using its published methodology.<sup>7</sup> For these purposes, CME has considered the BISL Announcement date of November 15, 2023, as the “Spread Adjustment Fixing Date” for BSBY for the purposes of the calculation. Consistent with BISL’s calculated spread adjustments for IBOR rates, the CME BSBY fallback spread adjustment is calculated as the median spread between BSBY and adjusted SOFR over the preceding five-year period from the BISL Announcement. The relevant methodology and CME-calculated fallback spreads were published by CME and subject to a consultation process with market participants, with final publication in May 2024 providing the following spreads:<sup>8</sup>

<b>BSBY Tenor</b>	<b>CME calculated BSBY Fallback Spread (bps)</b>
1M	3.403
3M	12.878

(the “BSBY Fallback Spreads”).

CME proposes that the corresponding BSBY Fallback Spread calculated by CME according to this methodology will be applied as a spread on the floating leg of each SOFR OIS that will result from the conversion of CME cleared BSBY swaps. The relevant CME-calculated BSBY Fallback Spread will also be used by CME for the purposes of computing the projected BSBY forward rate on the Conversion Date, utilizing the CME methodology set out in Exhibit 3 to CME Submission [24-[ ]].<sup>9</sup>

The methodology utilized by CME to calculate the BSBY Fallback Spreads is based on the ISDA Fallback Pricing Methodology previously utilized by BISL, acting on appointment by ISDA to calculate and distribute RFR adjustments for certain ISDA IBOR contractual fallbacks. CME has permission from ISDA and BISL to utilize the methodology for the purposes of the BSBY Conversion, including the calculation and publication of the BSBY Fallback Spreads for use by CME in relation to contractual fallbacks for CME cleared swaps. BISL and ISDA, as applicable, are the owners of the intellectual property rights with respect to the ISDA Fallback Pricing Methodology and the BISL IBOR Fallback Rate Adjustments Rule Book. CME is solely responsible for the determination and application of the relevant methodology and the calculation

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<sup>6</sup> Under the methodology used for calculating the adjusted RFR rate, the underlying RFR is compounded over an accrual period corresponding to the tenor of the original rate (e.g. IBOR, BSBY, etc). 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, or Offset Lag. The compounded rate is annualized, and the day count convention adjusted to match that of the original rate.

<sup>7</sup> As noted above, the ISDA Fallback Pricing Methodology was previously utilized by BISL to calculate and publish adjustments related to fallbacks to RFRs under the ISDA Definitions, which in turn were incorporated into CME’s previous relevant IBOR conversions for cleared swaps. CME’s fallback spread calculation methodology for BSBY is therefore consistent with the approach used by BISL during prior fallback spread calculations for IBOR rates, which in turn incorporates the ISDA Fallback Pricing Methodology.

<sup>8</sup> See: <https://www.cmegroup.com/markets/interest-rates/files/conversion-plan-cme-cleared-bsby-interest-rate-swaps.pdf>

<sup>9</sup> See: <https://www.cmegroup.com/articles/files/2024/usd-bsby-operational-material.pdf>

and publication of the BSBY Fallback Spreads, and for use in any conversion process implemented by CME. Neither ISDA nor BISL endorses the BSBY Fallback Spreads or CME's proposed methodology and neither ISDA nor BISL has any responsibility or liability for CME's utilization of the methodology, calculation or publication of the BSBY Fallback Spreads or use of the BSBY Fallback Spreads in any fallback or conversion process conducted by CME, or use of the BSBY Fallback Spreads by any other person. The BSBY Fallback Spreads should not be used by any other person as a reference rate within a financial instrument or financial contract.

#### Conversion Processes for Affected BSBY Swaps on the Conversion Date

CME has published its detailed methodology for the Conversion processes, including worked examples, provided as Exhibit 3 to CME Submission [24-[ ]] and is available on the CME website.<sup>10</sup> The methodology proposed by CME for the BSBY Transition ensures that each resulting conversion swap will retain the key economic terms of the corresponding original BSBY Swap to the extent practicable, in accordance with CME's published methodology, and shall include the BSBY Fallback Spread calculated by CME<sup>11</sup>.

The relevant methodology for the conversion of each original BSBY IRS is summarized below:

- each resulting CME cleared SOFR OIS arising from the Conversion process (each, a "Forward Starting SOFR OIS") will account for the BSBY Fallback Spread 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 BSBY Swap arising from the Conversion process (each, a "Short-Dated BSBY Swap") is designed to account for any scheduled BSBY fixing coupons which are due to take place prior to the BSBY Cessation Date, restating these accrual periods as Short-Dated BSBY Swaps which will have economic terms as determined by CME according to its published methodology, the purpose of which is to reduce the differences in cashflow amounts for the projected cashflows;
- in order to neutralize the value transfer from the Conversion of the economic position of each original BSBY 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 BSBY Swap and the combined NPV of the Forward Starting SOFR OIS and any Short-Dated BSBY Swap on the 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").<sup>12</sup> 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 Conversion Date;

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<sup>10</sup> The CME BSBY Cleared Swap Conversion methodology document is available on the CME website at: <https://www.cmegroup.com/articles/files/2024/usd-bsby-operational-material.pdf>

<sup>11</sup> Key economic terms to be carried over include notional amount, direction, maturity date, etc. If the notional of the original swap is constant (bullet), the notional of the original swap is carried over to both replacement swaps. Notional type (bullet) is also carried over to both swaps. If the notional of the original swap is variable, the notional step schedule is carried over to the replacement swaps and the notionals of the replacement swaps will match the step schedule of the original swap. In some cases, there may be no actual changes to the notional in one or both of the replacement swaps despite a variable notional swap type. In this case, the notional type of the replacement(s) is changed to "bullet".

<sup>12</sup> 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.

- cash flows relating to the Cash Adjustment will be applied in the next end of day clearing cycle following the 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 BSBY Swap will be cleared as a BSBY Swap and shall not be subject to the fallback provisions in Rule 90102.H.

#### Conversion Date – Conversion Processes

##### *A: BSBY IRS excluded from Conversion*

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

- (i) BSBY Swaps that mature on or before the Conversion Date; and
- (ii) BSBY IRS where the last BSBY fixing is scheduled to be published after the Conversion Date but on or before November 15, 2024, which shall expire and settle on their original terms.

##### *B: Conversion of Seasoned BSBY Swaps*

On the Conversion Date, CME will convert each CME cleared BSBY Swap that has an effective date before the Index Cessation Effective Date (each, a “Seasoned Swap”) into:

- (i) a corresponding standardized Forward Starting SOFR OIS, retaining the key economic terms of the original BSBY Swap trade; and
- (ii) a Short-Dated BSBY Swap accounting for all BSBY fixings scheduled to be published prior to the Index Cessation Effective 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 3 to CME Submission [24-[ ]].

##### *C: Conversion of Forward Starting BSBY Swaps with an effective date after the Index Cessation Effective Date*

On the Conversion Date, CME will convert each CME cleared BSBY Swap that is a Forward Starting Swap with an effective date after the Index Cessation Effective Date and which is open on the Conversion Date into:

- a corresponding standardized Forward Starting SOFR OIS, retaining the key economic terms of the original BSBY 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 3 to CME Submission [24-[ ]].

##### *D: Characteristics of each resulting Forward Starting SOFR OIS:*

Each Forward Starting SOFR OIS resulting from the Conversion process will:

- maintain the effective/maturity dates and fixed leg economic terms (excluding payment offset) of the original BSBY Swap;
- include a payment offset (2D) added to both legs of the resulting SOFR OIS swap, consistent with market standard SOFR OIS conventions;
- include a single compensating upfront fee (the Cash Adjustment) to be paid the following New York business day;
- Fixed leg day counts defaulted to the market standard convention, Actual/360;
- Payment calendars default to US New York (USNY).

#### *E: Conversion approach to Swap Stub Periods*

Stub periods require special processing when converting BSBY Swaps as there are different methods used to specify the original Floating Rate Option.

- Short-dated BSBY Swaps: CME will carry over the stub type, period start, and period end dates if the stub will be paid out after the Conversion Date and the stub has a fixing scheduled to be published prior to the Index Cessation Effective Date. Stub periods will reference the published BSBY fixing rates.
- SOFR OIS: Forward starting stub periods will maintain the period start and end dates with a daily compounded overnight rate. The compounding method is the same as a standard period. Fallback spreads apply to stub periods.

#### Limitation of Clearing Support for BSBY Swaps after Conversion Date

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

Until further notice by CME to market participants, from the Conversion Date CME will continue to accept BSBY swaps with all fixings scheduled to be published on or prior to the BSBY Cessation Date.

For the avoidance of doubt, from the Conversion Date CME will not accept any BSBY swap with fixings scheduled to be published after the BSBY Cessation Date.

The BSBY Conversion is a mandatory process and the terms set out in this Clearing Advisory will apply to all affected cleared trades in BSBY Swaps from July 12, 2024, subject to regulatory review.

#### Amendment to Conversion Date in Limited Circumstances

CME will reserve the right to amend the Conversion Date in its sole and absolute discretion prior to the 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 Conversion Date to market participants as soon as practicable upon making such determination.<sup>13</sup>

#### Examples of Cash Adjustment Amount Calculation and Processing

##### *Calculation of Cash Adjustment Amount*

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<sup>13</sup> CME Clearing has identified a provisional contingency fallback date of July 26, 2024, in the event that the July 12, 2024, date for the Conversion is determined to be unsuitable as the date of Conversion.

The Cash Adjustment amount is necessary to account for the difference in valuation between the original BSBY Swap and the combined valuation of the resulting SOFR OIS and any related Short-Dated BSBY Swap on the Conversion Date. The difference in the NPV of each original BSBY Swap and the corresponding replacement swaps on the 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 the Conversion Date as follows (the "Conversion Calculation"):

- On or shortly after COB on the 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 BSBY Swap subject to the Conversion process on that date, calculated utilizing CME's closing curve marks on the Conversion Date for each position account and utilizing the CME methodology and fallback spread calculation that is based on the equivalent ISDA IBOR methodology used by BISL for prior IBOR conversions (the "CME Methodology for BSBY Transition").
- Upon establishment of each SOFR OIS and any Short-Dated BSBY Swap within the clearing system, on or shortly after COB on the Conversion Date, the Clearing House will conduct an additional calculation to determine the NPV for each SOFR OIS and any Short-Dated BSBY Swap calculated utilizing CME's closing curve marks on the Conversion Date for each position account.
- Note that the determination of the NPV of the original BSBY Swap and the SOFR OIS and any Short-Dated BSBY 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 BSBY 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 BSBY 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 BSBY 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 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.

## Cash Adjustment Examples

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

As of COB on Friday, July 12, 2024

	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 BSBY Swap	07/12/2024	20162532	USD-BSBY	TERMINATED	0	0	38,012.03	-38,012.03	-	-	-	-38,012.03
Short-Dated BSBY Swap	07/12/2024	20216009	USD-BSBY	CLEARED	9,926.50	9,926.50	0	9,926.50	-	-	-	9,926.50
Forward Starting SOFR OIS	07/12/2024	20215998	USD- SOFR- OIS Compound	CLEARED	29,955.78	29,554.44	0	29,554.44	401.56	UPFRONT_FEE	07/15/2024	29,955.78

BSBY Swap valuation 07/12/24 = 39,882.50

\* 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 BSBY Swap Valuation NPV Adj. as at COB July 12, 2024 = 39,882.50 (shown as zero above since swap has terminated in conversion, from an operational perspective)

Forward Starting SOFR OIS Valuation + Short-Dated BSBY Swap Valuation (NPV Adj. as at 07/12/2024) = 9,926.50 + 29,554.44 = 39,480.94

Profit and Loss (PnL) Change = (9,926.50 + 29,554.44) – 39,882.50 = - 401.56

Cash Adjustment = Change in Adjusted NPV = 401.56

\* Note: In this example, the Cash Adjustment offsets the gain of 401.56 between the Original BSBY Swap and the combined valuation of the Forward Starting SOFR OIS and the Short-Dated BSBY 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
07/15/2024	20216009	USD-BSBY	CLEARED	9,940.00	9,940.00	9,926.50	13.50	-	-	-	13.50
07/15/2024	20215998	USD-SOFR-OIS Compound	CLEARED	29,580.00	29,580.00	29,554.44	25.56	-	-	-	25.56

### Calculation Breakdown (07/12/2024)

Original BSBY Swap VM = NPV Adj. – Previous NPV Adj.

$$= 0 - 38,012.03 = -38,012.03$$

PnL Change = NPV Adj. (Forward Starting SOFR OIS) + NPV Adj. (Short Dated BSBY swap) – NPV Adj. Original BSBY Swap

$$= (29,554.44 + 9,926.50) - 39,882.50 = - 401.56$$

Cash Adjustment Amount = (NPV Adj. of Original BSBY Swap – NPV Adj. of Forward Starting SOFR OIS + NPV Adj. (Short Dated BSBY swap))

$$= 39,882.50 - (29,554.44 + 9,926.50) = 401.56$$

NPV Adj. (Forward Starting SOFR OIS) = NPV – Upfront Payment

$$= 29,955.78 - (401.56) = 29,554.44$$

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 previous industry initiatives.

**Clearing of Forward Starting SOFR OIS and Short-Dated BSBY Swaps**

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

From the completion of the end of day clearing cycle on the Conversion Date, each Forward Starting SOFR OIS and any Short-Dated BSBY Swap resulting from the 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 Conversion Date.

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

**Fees for BSBY Conversion Process**

CME will apply a transaction fee per line item for conversion of any CME cleared interest rate swaps that reference BSBY (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 \$50 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.<sup>14</sup>

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*	\$50 per line item*

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

**Rationale for BSBY Transition Process**

Based on CME’s engagement with market participants, the conversion of cleared BSBY Swaps by the amendment of cleared trades into corresponding SOFR OIS by CME is seen by market participants as an important element in the overall process of ensuring an orderly and efficient transition from BSBY in derivatives markets prior to the BSBY Cessation Date.

As with the recent CME-led IBOR transitions, the industry consensus communicated to CME by market participants indicated that cleared market participants prefer an “early” and “CCP-led” transition of cleared

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<sup>14</sup> The Conversion Fee shall not apply to: Short-Dated BSBY Swaps resulting from the Conversion process or to the termination of BSBY Swaps.

BSBY Swaps to standardized cleared SOFR OIS ahead of the BSBY Cessation Date. Market participants have informed CME that the CCP-led conversion of BSBY swap exposures into market standard SOFR swaps benefits the marketplace by providing a clear operational pathway to convert BSBY exposures into liquid standardized SOFR OIS exposure, based on a clear, transparent methodology. Market participants have also supported CME's proposed methodology and approach to calculate the BSBY Fallback Spreads, utilizing a methodology based on the ISDA Fallback Pricing Methodology used by CME for previous IBOR conversions, and CME's proposal to account for the relevant BSBY Fallback Spread on the floating leg of the replacement SOFR OIS swap, rather than rely fully on the ISDA-derived contractual fallbacks that would otherwise apply under the CME Rules following the BSBY Cessation Date.

Transitioning BSBY exposures into the liquid pool of SOFR OIS ensures that the relevant swaps are capable of being supported by clearing following the BSBY Cessation Date and further provides certainty to market participants that "legacy" and "new" contracts will be fungible with one another following the transition to SOFR OIS.

CME's proposed approach has been well publicized and understood. Previous IBOR conversions conducted by CME since 2022, including the USD LIBOR conversion in June 2023, have demonstrated CME's operational capabilities and clearing member and wider market participant understanding and support of the relevant processes.

CME has consulted with a diverse cross-section of market participants to obtain feedback on the operational processes for the BSBY Transition. As noted above, the proposed processes are substantively similar to the approach adopted by CME in 2023 to effect the USD LIBOR Transition, in relation to which CME had conducted extensive outreach and engagement in 2022 and 2023. As part of ongoing discussions with market participants on the proposals for the BSBY Conversion, in May 2024 CME shared the final public details of the proposals to effect an "early" and "CCP-led" transition away from BSBY ahead of the Index Cessation Effective Date, which included publication of the CME-calculated BSBY Fallback Spreads. CME published further operational level information on the proposed conversion process in June 2024, which included a detailed operational methodology providing full operational level information on the processes that CME will follow to implement the transition.<sup>15</sup>

Following the successful USD LIBOR Transition in 2023 and the recent CAD CDOR transition in May 2024, 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.

CME recognizes that the BSBY Transition and the Conversion will have an impact on market participants holding open positions in BSBY Swaps. As a result, as part of the preparations for the BSBY Transition, CME will provide market participants with information, reporting tools and an operational "dress rehearsal" 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 Conversion Date.<sup>16</sup> CME conducted a "dress rehearsal" for clearing member testing on June 17, 2024.<sup>17</sup>

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<sup>15</sup> The final methodology for the BSBY Conversion was published by CME in May 2024 following a period of consultation and is available on the CME website at: <https://www.cmegroup.com/markets/interest-rates/files/conversion-plan-cme-cleared-bsby-interest-rate-swaps.pdf>. Additional operational level detail was provided by CME in June 2024, see: <https://www.cmegroup.com/articles/files/2024/usd-bsby-operational-material.pdf>

<sup>16</sup> Prior to the dress rehearsal, from June 5, 2024, to provide a "clean slate" for testing in the New Release environment, CME will terminate all BSBY swaps in the New Release environment. Following the dress rehearsal, CME will run a daily conversion cycle in the New Release environment to establish resulting swaps in the New Release environment.

<sup>17</sup> See CME Clearing Advisory 24-171: <https://www.cmegroup.com/notices/clearing/2024/06/Chadv24-171.html>

The initial publication by CME Clearing of "indicative analysis reports" to illustrate example Cash Adjustment amounts for test portfolios on any conversion day commenced on June 12, 2024 and will be available for both clearing members and clients until the Conversion Date.

### **Legal and Operational Characterization**

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

### **Operational Information**

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 BSBY 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 BSBY Swap.

As part of the Conversion process, a subset of Trade IDs from each original BSBY Swap will be carried over to the relevant resulting SOFR OIS and Short-Dated BSBY Swap. The CME Trade ID and USI/UTI are not carried over but, in order to identify the link between each original BSBY Swap and the relevant resulting SOFR OIS and any Short-Dated BSBY Swap, 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 BSBY Swap and the establishment of each corresponding Forward Starting SOFR OIS, Short-Dated BSBY 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" or "Prior UTI" field with the USI/UTI of the relevant original BSBY 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/UTI of each original BSBY Swap and CME will ensure that each resulting SOFR swap will be reported as a "New Trade."

### **Trade Messaging and Reports**

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 in respect of the operational termination of each BSBY 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 BSBY Swap

and the revised NPV for each Forward Starting SOFR OIS (combined with any Short-Dated BSBY 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 June 12, 2024 until the Conversion Date. The Indicative Analysis Report will use CME valuation curves for project BSBY fixings and to value all swaps for indicative purposes only. The Indicative Analysis Report will be delivered to clearing firm and client sFTP folders. Actual values will vary and are not known until the conversion process on the Conversion Date. The actual Cash Adjustment amounts will be indicated in the IRS Trade Register at COB on the Conversion Date.

### **Implementation of BSBY Conversion**

This Advisory Notice sets out the binding rules and operational processes under which CME Clearing will implement each element of the BSBY Conversion, including the modification and operational close out of BSBY IRS Contracts and the establishment of replacement corresponding SOFR standardized OIS and, where applicable, Short-Dated BSBY Swaps, which will be implemented by CME with respect to open cleared trades in affected CME cleared products on the Conversion Date. The BSBY Conversion is a mandatory process and the terms set out below in this Clearing Advisory will apply to all cleared trades in BSBY Swaps from July 12, 2024, [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 BSBY Conversion and this Advisory Notice**

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

- (i) reference BSBY as the interest rate swap rate option (the “Floating Rate Option”) <sup>18</sup>;
- (ii) are open at close of business (“COB”) on the Conversion Date; and
- (iii) have final rate fixings scheduled to be published after the BSBY Cessation Date,

(the “Affected Contracts”).<sup>19</sup>

### **Terms and Operation of Conversion Processes**

1. The “Conversion Date” shall be July 12, 2024 except where the Clearing House determines in its sole and absolute discretion prior to the Conversion process that implementation of the conversion process on July 12, 2024, 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 “Conversion Date” in its sole and absolute discretion prior to the Conversion and shall communicate the revised Conversion Date to market participants as soon as practicable upon making such determination.
2. At or shortly after COB on the Conversion Date, CME Clearing will amend the terms of each eligible cleared trade in BSBY IRS that is open at COB on the Conversion Date in the account

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<sup>18</sup> BSBY Swaps comprise any CME cleared IRS referencing “USD-BSBY” as the Floating Rate Option. Basis swaps referencing BSBY are excluded from the BSBY Conversion.

<sup>19</sup> Note that forward rate agreements referencing BSBY (“FRAs”) are excluded from the scope of the BSBY Conversion as CME does not support BSBY FRAs. Basis swaps are also excluded from the BSBY Conversion.

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 relevant floating period following November 15, 2024 (each, a "SOFR OIS Conversion Swap"); and
- (b) where applicable, a short-dated BSBY replacement swap accounting for BSBY floating period coupons on the Pre-Conversion Swap, with start and end dates matching the remaining BSBY floating periods with unsettled coupons resulting from fixing dates scheduled to be published on or prior to November 15, 2024 (each, a "Short-Dated BSBY 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.

### Conversion Processing

3. At or shortly after COB on the Conversion Date, with respect to each relevant position account, CME will calculate the difference in net present value ("NPV") at COB on the Conversion Date (at closing curve levels on the Conversion Date) between:
  - (i) each Pre-Conversion Swap subject to Conversion on the Conversion Date; and
  - (ii) the corresponding Conversion Swap(s),(the "Conversion Calculation").
4. CME Clearing will determine settlement variation for each Conversion Swap on the Conversion Date (at closing curve levels on the Conversion Date) for valuation for the end of day clearing cycle on the Conversion Date.
5. At the next end of day clearing cycle following the Conversion Date, for each Conversion Swap, CME Clearing will:
  - (a) apply as an upfront fee to each SOFR OIS Conversion Swap 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.

6. Following the Conversion Date, each SOFR OIS Conversion Swap and Short-Dated BSBY Swap will be cleared by CME subject to the terms of the CME Rules.
7. CME will account for the relevant BSBY fallback spread adjustment published by CME (the "BSBY Fallback Spread") in determining the floating amount of each SOFR OIS Conversion Swap in each case in accordance with CME's published methodology.

#### Conversion Process Fees

8. 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) \$50 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

9. 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 or Conversion Swap resulting from the BSBY Conversion process.
10. 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.
11. The terms of this Advisory Notice and the Conversion process are binding on Clearing Members and position holders in all Affected Contracts, effective July 12, 2024. 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.

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

#### **Limitation of Acceptance for Clearing for Affected Contracts Following Conversion Date**

From COB on the Conversion Date, CME Clearing will cease to accept for clearing trades referencing BSBY except trades with a final fixing scheduled to be published prior to the BSBY Cessation Date.

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 July 12, 2024, as detailed in CME Submission 24-276.

Additional details regarding the Conversion may be viewed in **CME Submission No. 24-276**.

Inquiries regarding the aforementioned may be directed to:

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