

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 23-105

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

Filing as a: DCM SEF DCO SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 02/08/23 **Filing Description:** Modifications to Singapore Dollar IRS to Support Transition to SORA Price Alignment and Discounting

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

- | | | |
|-------------------------------------|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Certification | § 40.6(a) |
| <input type="checkbox"/> | Approval | § 40.5(a) |
| <input type="checkbox"/> | Notification | § 40.6(d) |
| <input type="checkbox"/> | Advance Notice of SIDCO Rule Change | § 40.10(a) |
| <input type="checkbox"/> | SIDCO Emergency Rule Change | § 40.10(h) |

Rule Numbers: See filing.

New Product

Please note only ONE product per Submission.

- | | | |
|--------------------------|---------------------------------------|------------|
| <input type="checkbox"/> | Certification | § 40.2(a) |
| <input type="checkbox"/> | Certification Security Futures | § 41.23(a) |
| <input type="checkbox"/> | Certification Swap Class | § 40.2(d) |
| <input type="checkbox"/> | Approval | § 40.3(a) |
| <input type="checkbox"/> | Approval Security Futures | § 41.23(b) |
| <input type="checkbox"/> | Novel Derivative Product Notification | § 40.12(a) |
| <input type="checkbox"/> | Swap Submission | § 39.5 |

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

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

Official Name(s) of Product(s) Affected:

Rule Numbers:

February 8, 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 40.6(a) Certification. Notification Regarding Modifications to Discounting and Price Alignment for Singapore Dollar (“SGD”) Interest Rate Swaps to Transition to the Singapore Overnight Rate Average (“SORA”).
CME Submission No. 23-105**

Dear Mr. Kirkpatrick:

Pursuant to Commodity Futures Trading Commission (“CFTC” or “Commission”) Regulation 40.6(a), Chicago Mercantile Exchange Inc. (“CME”), a registered derivatives clearing organization (“DCO”) under the Commodity Exchange Act, as amended (“CEA” or “Act”) hereby certifies to the Commission a new rule applicable to certain Singapore Dollar (“SGD”) denominated Interest Rate Swap (“IRS”) products cleared by CME, designed to facilitate a transition to Singapore Overnight Rate Average (“SORA”) price alignment and discounting for certain CME cleared IRS contracts denominated in SGD to take place on February 24, 2023 (the “Transition Date”), which is, in turn, intended to support and facilitate the wider cash and derivatives market transition from the SGD Swap Offer Rate (“SOR”)¹ to SORA, the nominated successor risk-free rate (“RFR”) for contracts denominated in SGD.²

CME clears SGD over-the-counter (“OTC”) IRS that have not yet transitioned to SORA price alignment and discounting (“PA/Discounting”).³ In order to further facilitate the reduction of market participant exposures to SOR ahead of the June 30, 2023 scheduled discontinuation date for SOR, and to align pricing of CME cleared SGD IRS with that of other major CCPs, CME will update the PA/Discounting protocol for CME

¹ SOR is the synthetic rate for deposits in SGD, which represents the effective cost of borrowing SGD synthetically by borrowing U.S. Dollars for the same maturity (utilizing the USD London Interbank Offered Rate (“USD LIBOR”) for the purposes of computation), and swap out the USD in return for the SGD. SOR is set by the Association of Banks in Singapore. USD LIBOR is scheduled to cease publication in a “representative” manner immediately after June 30, 2023. As such, SOR will also be discontinued immediately after June 30, 2023. See: <https://abs.org.sg/benchmark-rates/sor-sibor-to-sora>

² LCH Limited transitioned SGD IRS to SORA price alignment and discounting in August 2021, see: <https://www.lch.com/membership/ltd-membership/ltd-member-updates/transition-sor-sora-paipaa-discounting>. LCH has announced its intention to convert outstanding SGD SOR IRS to equivalent SORA IRS on June 9, 2023, ahead of the cessation of the SOR benchmark rates following June 30, 2023, see: <https://www.lch.com/membership/ltd-membership/ltd-member-updates/lchs-consultation-conversion-outstanding-sgd-sor>. CME has discussed proposals with position holders to assist with the close out of open positions in SGD IRS referencing SOR ahead of the scheduled cessation of the SOR benchmark rates, with the final arrangements to be agreed in Q1 2023. Regardless of the arrangements for transition ahead of SOR discontinuation, a discounting transition from SOR to SORA will align CME SGD IRS price alignment and discounting with that of LCH, which will assist market participants wishing to transition to SGD SORA indexed clearing.

³ Price alignment is the adjustment used to reflect the overnight cost of funding collateral for a bilateral OTC swap contract to mitigate the basis risk between cleared and uncleared swaps. The discounting rate is used for the discount curve to calculate swap value.

cleared SGD IRS to SORA to take effect at close of business on the Transition Date (the “Transition”). The new rule to effect the Transition is set out in the Clearing Advisory Notice attached as Exhibit 1, effective February 24, 2023. This initiative follows CME’s successful previous transitions of certain other CME cleared OTC IRS products to nominated successor RFR PA/Discounting in 2020 and 2021.⁴

CME is a systemically important derivatives clearing organization (“SIDCO”)⁵ and its clearing division (the “Clearing House”) offers clearing for all products traded on CME, 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.

Background

Transition to SORA PA/Discounting

SORA is the average rate of overnight SGD borrowing transactions by banks in Singapore, calculated by reference to the volume-weighted average rate of borrowing transactions in the unsecured overnight interbank SGD cash market in Singapore between 8am and 6.15pm, Singapore time. SORA is administered and published by the Monetary Authority of Singapore (“MAS”) and is accessible at no charge on the MAS website.⁶ Publication of SORA by MAS began on July 1, 2005. SORA is computed by MAS based on actual transactions and meets the standards of international best practice set out in the IOSCO Principles for Financial Benchmarks.⁷

As part of regulatory and industry initiatives to transition away from certain key interbank offered rates (“IBORs”) and interest rate benchmarks, on August 30, 2019 the Association of Banks in Singapore and the Singapore Foreign Exchange Market Committee (“ABS-SFEMC”) recommended SORA as the most suitable and robust benchmark to replace SOR for interest rate derivatives denominated in SGD. MAS established the Steering Committee for SOR & SIBOR Transition to SORA, comprising senior representatives from key banks, relevant industry associations and MAS, to provide strategic direction and oversee the industry transition from SOR and the Singapore Interbank Offered Rate (“SIBOR”)⁸ to SORA (“SC-STS”).

In accordance with the SC-STS SORA Transition Roadmap⁹, market participants are preparing for the transition of bilateral and cleared OTC SGD IRS from SOR to SORA as SOR is scheduled to be discontinued at the end of June 2023. CME currently supports SOR interest rate swaps and in 2021 launched SORA interest rate swaps to assist market participants in this transition process. In July 2021,

⁴ For example, on October 16, 2020, as part of an industry wide transition for USD IRS, CME successfully completed the transition of the PA/Discounting protocol for CME cleared USD interest rate swap products from EFR to SOFR (the “USD IRS PA/Discounting Transition”), see CME Clearing Advisory, October 16, 2020 confirming successful completion of the transition to SOFR PA/Discounting for CME cleared USD IRS: <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2020/10/Chadv20-402.pdf>. CME effected a similar discounting transition for Euro (EUR) IRS in July 2020 (the “EUR IRS PA/Discounting Transition”), see <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2020/05/Chadv20-210.pdf>.

⁵ On July 18, 2012, CME Inc. was designated as a systemically important financial market utility under Title VIII of the Dodd-Frank Act.

⁶ Further details are available on the MAS website at <https://www.mas.gov.sg/monetary-policy/sora>. The SORA rate is published at <https://eservices.mas.gov.sg/statistics/dir/DomesticInterestRates.aspx>.

⁷ See: <https://www.mas.gov.sg/-/media/MAS/SORA/IOSCO-Statement.pdf?la=en&hash=14AD57BBE559FE6157F4E641481108025E3E37ED>

⁸ SIBOR is the daily reference rate set by the Association of Banks in Singapore and is based on the interest rates at which banks offer to lend unsecured funds to other banks in the Singapore wholesale money market. Certain SIBOR tenors were discontinued in 2022 and all SIBOR tenors will cease to be published from the end of 2024: <https://www.abs.org.sg/docs/library/timelines-to-cease-issuance-of-sor-derivatives-and-sibor-linked-financial-products.pdf>

⁹ See <https://abs.org.sg/benchmark-rates/transition-roadmap>

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the SC-STS made “Recommendations for Transition of Legacy SOR Contracts”, which included acknowledgement that the switch from SOR to SORA for PA/Discounting by CCPs would further reduce reliance on SOR derivatives by financial institutions looking to reduce their exposures to SOR. The SC-STS supports the proposals of CCPs to convert or replace centrally cleared SOR derivatives contracts at or before the expected discontinuation of SOR, although it also noted that market participants should not view such CCP conversions as the primary mode of transition.¹⁰

Summary of Transition Process

CME cleared IRS products that currently utilize SOR for PA/Discounting will transition to SORA PA/Discounting, to take effect at close of business on Friday, February 24, 2023.

As part of the “single day” approach to the Transition and to mitigate the economic effects of the change in PA/Discounting protocol, “legacy” contracts in affected products will be subject to a mandatory cash adjustment process on the date of the Transition. As part of that process, CME will implement an offsetting cash adjustment mechanism under which a cash amount equal and opposite to the change in net present value of each cleared trade affected by the change to SORA discounting will be applied to the relevant position holder account to ensure that net cash flows for position holders impacted by the change to SORA discounting are zero on the date of the Transition. As with the equivalent CME USD IRS PA/Discounting Transition and the EUR IRS PA/Discounting Transition that took place in 2020, the cash adjustment will be settled as part of the usual settlement variation (variation margin) cycle, calculated on the following Clearing Day after the Transition Date (in this case, Monday February 27, 2023) and will be settled on the morning of Wednesday, March 1, 2023.

The transition process for the October 2020 CME USD IRS PA/Discounting Transition required a basis risk compensation mechanism¹¹ that has not been required for other currency PA/Discounting transitions. CME considers that such mechanism will also not be required for the Transition for SGD IRS, given the short-dated nature of the products and the relatively small discounting risk in comparison to USD IRS. Therefore, while the approach to the Transition for SGD IRS set out in this filing closely follows the USD IRS PA/Discounting Transition process (and other similar CME PA/Discounting transitions) with regard to the cash adjustment process relating to the discounting transition, based on its discussions with market participants, CME determined not to apply a compensatory basis swap mechanism in this instance.

The Transition shall apply to all open positions in CME cleared SGD IRS outstanding on the Transition Date. Following the Transition, all CME cleared trades in affected products will be subject to SORA discounting, including existing cleared “legacy” swap contracts outstanding on the Transition Date and “new” contracts submitted for clearing after the Transition Date. Trades in affected products submitted for clearing after the Transition Date shall not be subject to the cash adjustment mechanism.

¹⁰ See SC-STS “Recommendations for Transition of Legacy SOR Contracts” (July 2021) available at: <https://abs.org.sg/docs/library/sc-sts-recommendations-for-transition-of-legacy-sor-contracts.pdf>. LCH Limited transitioned SGD IRS to SORA price alignment and discounting in August 2021, see: <https://www.lch.com/membership/ltd-membership/ltd-member-updates/transition-sor-sora-paipaa-discounting>. As noted above, LCH has also indicated its intention to convert SOR derivatives to reference SORA ahead of the final publication date. CME continues to engage with CME SGD IRS position holders regarding proposals to facilitate the close out remaining open positions in such contracts at CME ahead of the June 30, 2023 final publication date.

¹¹ As part of the USD IRS PA/Discounting Transition in October 2020, in response to market participant feedback, CME offered (i) a risk compensation mechanism for market participants affected by the discounting transition to SOFR in the form of mandatory assignment of compensatory SOFR/EFFR basis swaps designed to replicate approximately the original discounting risk exposure of the market participant prior to the transition to SOFR discounting, and (ii) a voluntary auction process to allow firms to close out these compensatory swaps if required. CME does not consider that either of these mechanisms are necessary or appropriate for the Transition.

Further details on the Transition process are provided below.

Overview of Engagement with Market Participants and Industry Groups

The transition to SORA PA/Discounting will facilitate the wider transition from the use of SOR to the use of SORA in cash and derivatives markets.¹² As noted above, the transition and the development of markets for SORA-linked products is supported by regulatory authorities and market participants, as evidenced by the SORA Transition Roadmap and the statements of the SC-STs.¹³

The SORA rate is derived from an active, well defined and deeply liquid market and is produced in a transparent manner based on observable transactions. On this basis, CME has determined that SORA is an appropriate rate to be applied for the purposes of PA/Discounting for relevant cleared products and that CME should further support and facilitate the industry transition to SORA through the changes set out in this filing.

CME has consulted with all position holders with outstanding SGD IRS contracts cleared by CME to obtain feedback on CME's proposals to assist position holders in reducing their exposure to SOR ahead of its scheduled discontinuation, including consultation on the proposed timing and operational processes for the Transition. A summary of CME's proposals for the transition to SORA was provided to position holders in December 2022, with further information provided on January 12, 2023. Following the successful USD IRS PA/Discounting Transition and the EUR IRS PA/Discounting Transition in 2020, market participants are familiar with CME's proposed approach and methodology for implementation of changes in PA/Discounting and the relevant operational processes have been tested in both test and production environments. CME has scheduled operational testing and support to the date of implementation, including test runs scheduled for February 7 and February 17, 2023. No objections to the proposals have been received.

The new rule will be implemented via Advisory Notice published by the Clearing House setting out the terms of the Transition and the PA/Discounting environment to be applied with respect to affected contracts following the Transition, in the form set out in Exhibit 1 (the "Advisory Notice"). The Advisory Notice will be binding on all position holders and Clearing Members and shall be effective from February 24, 2023.

Further details on the Transition process are set out below:

Operational Overview of Transition Process

The Transition will apply to CME cleared trades in SGD IRS, each of which currently utilizes SOR for PA/Discounting (the "Affected Contracts").

Any Affected Contract accepted for clearing by CME after the Transition will be subject to SORA PA/Discounting (as applicable) from acceptance by the Clearing House and will not be subject to the cash adjustment process.

Change of PA/Discounting environment from SOR to SORA

The change in PA/Discounting to SORA will result in a change in valuation for positions in the relevant Affected Contract, resulting in valuation gains or losses in each case depending on the position. As part of

¹² CME's methodology and approach will mitigate the cash flow impact of the discounting transition valuation change for market participants and is designed to minimize the risk of market disruption and avoid any undue and material impact on the competitive interests of any market participant.

¹³ See <https://abs.org.sg/benchmark-rates/transition-roadmap>
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the Transition, CME will implement certain processes that it has designed to mitigate the effects of the PA/Discounting change. These processes are summarized below:

Positions in Affected Contracts held open at close of business (“COB”) on February 24, 2023 (the “Transition Date”) will be included in the following Transition operational process to update the PA/Discounting environment to SORA:

- At COB on the Transition Date, the Clearing House will conduct a standard valuation calculation during the end of day clearing cycle, to determine the net present value (“NPV”) for cleared trades in the Affected Contracts as calculated with the current SOR-based discounting valuation methodology
The calculation will therefore be based in part on the relevant SOR discount curve closing curve levels (as applicable) on the Transition Date for each position account.
- Upon completion of this initial valuation calculation, the Clearing House will then conduct an additional calculation to determine the NPV for cleared trades in the Affected Contracts as calculated with SORA-based discounting valuation methodology
- The calculation will be based in part on the relevant SORA discount curve, closing curve levels (as applicable) on the Transition Date for each position account.
- The difference between the two calculations for each cleared trade (the “Transition Calculation”) represents the change in NPV arising from the switch from SOR to SORA PA/Discounting.
- From the completion of the end of day clearing cycle on the Transition Date, the Affected Contracts will be subject to SORA PA/Discounting for the remaining lifecycle of the relevant cleared trade and settlement variation (as defined in the CME rules (the “Rulebook”)) for each clearing cycle following the Transition Date will be determined accordingly.¹⁴ Any trade in an Affected Contract accepted for clearing by CME after the Transition Date will be subject to SORA PA/Discounting once CME accepts that cleared trade for clearing.

The above operational process to change the discounting environment will likely give rise to gains/losses in positions in Affected Contracts, resulting in a value transfer between swap participants with cleared trades in Affected Contracts. This is due to the change in the NPV of each cleared swap resulting from the change in discounting approach from SOR to SORA, which shall apply to Affected Contracts on the next clearing day following the Transition Date.

Cash Adjustment

Based on feedback from market participants and alignment with previous industry initiatives including the USD IRS PA/Discounting Transition and the EUR IRS PA/Discounting Transition, the Clearing House will apply a mandatory cash adjustment process during the next end of day clearing cycle following the Transition Date to neutralize value transfers attributable to the change in the discounting basis from SOR to SORA.¹⁵ CME will implement a cash adjustment that is equal and opposite to the change in NPV of each position in each Affected Contract resulting from the change in discounting approach, determined by the Transition Calculation (“Cash Adjustment”). The Cash Adjustment will be applied to the relevant account by the Clearing House during the end of day clearing cycle following the Transition Date, as illustrated in the hypothetical examples below:

Cash Adjustment and Variation Margin Example for SOR to SORA Transition

Figure 1 below provides an example of the discounting cash flow for the Transition:

¹⁴ Note that coupon payments on cleared swaps are unaffected as these remain determined by their original interest rate index.

¹⁵ Valuation changes will be determined by the relevant discounting methodology for the relevant product, as described in the previous section.

Figure 1:

	Date	Current NPV	Prior NPV	Variation Margin	Cash Adjustment	Total Cash
1	T-1 (Thursday Feb 23, 2023)	\$100 (SOR)				
2	Transition Date (T)	\$125 (SOR)	\$100 (SOR)	\$25		\$25
	T+1 (Monday, February 27, 2023)	\$140 (SORA)	\$125 (SOR, Transition Date)	\$15	-\$1	\$14

In this example, the SORA NPV on the Transition Date is \$126, generating the \$1 Cash Adjustment.

Where the holder of the position in a cleared trade receives a positive change in NPV of that position resulting from the change to SORA discounting (which represents a change in value which must be paid to the account holder from the Clearing House as central counterparty and therefore party to the other side of the cleared trade), the Cash Adjustment will operate to provide an equal and opposite offsetting adjustment amount which must be paid from the position holder to the Clearing House (again, in its capacity as central counterparty acting as the other party to the cleared trade). Given that the change in NPV and the Cash Adjustment are equal and opposite, the net cash flow for each account with respect to each cleared trade is zero.

Where the holder of the position in a cleared trade receives a negative change in NPV of that position resulting from the change to SORA discounting which must be paid from the account holder to the Clearing House (as central counterparty and party to the other side of the cleared trade), the Cash Adjustment provides for an equal and opposite offsetting adjustment amount which must be paid to the position holder from the Clearing House. Again, the net cash flow for each account with respect to each cleared trade is therefore zero.

The Cash Adjustment amount will be applied by the Clearing House to each relevant position account during the end of day clearing cycle following the Transition Date during which settlement variation for positions will be determined utilizing SORA discounting and price alignment and outstanding exposures and payments netted and settled in accordance with CME Rule 814. Given that the change in NPV calculated by the Transition Calculation is offset exactly by the Cash Adjustment amount, indicated by the figure in the “Offsetting Adjustment” column in the examples in the table above, the net cash flow with respect to the discounting 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 only to cleared trades in Affected Contracts at the Clearing House as of COB on the Transition Date.

We acknowledge that the PA/Discounting change will also change the discounting risk profile of positions in Affected Contracts (as SOR discounting risk will be replaced by SORA discounting risk, as determined by the SORA closing curve on the date of the Transition). However, unlike the USD IRS PA/Discounting Transition where CME allocated SOFR/EFFR basis swaps to replicate approximately the change in

discounting risk resulting from the transition to SOFR discounting¹⁶, CME will not be providing any process for risk compensation to account for the change in discounting risk profile arising from the Transition because CME has determined that the size of the discounting risk carried in the relevant Affected Contracts, together with the risk weighting towards the short end of the curve, is such that risk compensation is not appropriate for the Transition for these contracts. CME's approach to risk compensation is understood to be consistent with the needs and expectations of market participants and with recent discounting transitions.

Implementation of Transition

No amendments to the Affected Contract terms or the Rulebook are necessary to implement the Transition. The PA/Discounting change will be implemented via Advisory Notice published by the Clearing House setting out the terms of the Transition, 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 website. The Advisory Notice will be binding on position holders in all Affected Contracts on and after the Transition Date of February 24, 2023 and SORA PA/Discounting will also apply to any trade in the relevant Affected Contract accepted for clearing by CME after the Transition Date.

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

In addition to the information provided in the Advisory Notice, the Clearing House will update the relevant information on the applicable PA/Discounting rate applicable to Affected Contracts in each case on the Transition Date:

- end of day operational reports (PAA Report and Trade Register report) made available by the Clearing House only to IRS clearing members via an sFTP site;
- CME OTC IRS Bookkeeping document, made available to IRS Clearing Members and their customers on request; and
- IRS Discounting Transition Report made available by the Clearing House only to IRS Clearing Members via an sFTP site on the Transition Date, illustrating the revised NPV for trades in Affected Contracts under the new discounting methodology and the cash adjustment at the trade level for each position account. This enables the impacts of the Transition for each cleared trade to be isolated and providing participants with the ability to reconcile settlement variation on the Monday morning following the Transition Date by referencing the Cash Adjustment amount and prior day SOR NPV;

Details of the SORA curves utilized for the purposes of discounting calculations for the Affected Contracts will also be made available by the Clearing House via an sFTP site.

Governance, Industry Consultation, Comments/Opposing Views:

We recognize that the Transition will have an impact on market participants holding open positions in Affected Contracts. CME has engaged in discussions with Clearing Members and contacted all position holders in CME cleared SGD IRS with respect to the CME Transition process, building on the experience and feedback from the USD IRS PA/Discounting Transition and the EUR IRS PA/Discounting Transition.

¹⁶ As noted above, the decision to provide risk compensation as part of the USD IRS PA/Discounting Transition in the form of mandatory assignment of compensatory SOFR/EFFR basis swaps reflected market participant feedback.

The Transition process and the text of the Advisory Notice is a product of the feedback provided by market participants during these consultation processes.

The Transition has been designed to provide a simple and efficient mechanism to effect the transition to SORA PA/Discounting for positions in the Affected Contracts with minimal operational complexity for market participants. Based on previous industry initiatives, the Transition provides for a Cash Adjustment to neutralize the one-time valuation change arising from the switch to the SORA discounting curve.

During the consultation process, there were no substantive opposing views raised by position holders with respect to the proposals for the Transition as set out in the text of the Advisory Notice.¹⁷

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

Analysis of the Transition and Advisory Notice under DCO Core Principles

CME reviewed the derivatives clearing organization core principles (“Core Principles”) as set forth in the CEA. During the review, CME identified the following Core Principles as potentially being impacted:

Core Principle D – Risk Management: Following consultation with all position holders and Clearing Members, the implementation of the Transition via the Advisory Notice by CME has been designed to align with the successful previous industry initiatives to move from EONIA to €STR PA/Discounting for OTC EUR interest rate swap products and from EFFR to SOFR PA/Discounting for OTC USD interest rate swap products. The mandatory Cash Adjustment process to the relevant position accounts of participants with positions in Affected Contracts at COB on the Transition Date is designed to address the valuation changes arising from the change in discounting environment. Based on outreach to position holders, there have been no objections to CME’s approach that the Clearing House will not be providing any process for risk compensation to account for the change in discounting risk profile. On this basis, CME considers that this approach is consistent with the needs and expectations of market participants.

Core Principle L – Public Information: The implementation of the Transition via the Advisory Notice and the operational elements of the Transition will change the discounting environment of each of the Affected Contracts from SOR to SORA. CME has taken appropriate steps to provide position holders and Clearing Members with sufficient information to enable market participants to identify and evaluate effectively the risk associated with holding positions in the Affected Contracts at the time of Transition and thereafter.

Core Principle N – Antitrust Considerations: The Transition will not result in any unreasonable restraint of trade or impose any material anticompetitive burden. The Transition reflects implementation of the industry-wide initiative to transition interest rate swaps and other products from SOR to SORA, in line with the recommendations of the relevant authorities, which in turn are widely supported by market participants and regulatory authorities as promoting the further market adoption of SORA. CME has engaged with position holders and Clearing Members to obtain feedback on the processes for the Transition and has not received any comments regarding antitrust/fair competition concerns.

The text of the CME Clearing Advisory Notice is attached hereto in Exhibit 1.

The Clearing Advisory Notice shall be effective February 24, 2023.

¹⁷ 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”.

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Pursuant to Section 5c(c)(1) of the CEA and CFTC Regulation 40.6(a), CME certifies that the new rule in the form of the Clearing Advisory Notice complies 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

Attachment: Exhibit 1 – CME Clearing Advisory Notice

Exhibit 1 CME Clearing Advisory Notice



TO: Clearing Member Firms
Back Office Managers

DATE: []

FROM: CME Clearing

NOTICE #: 23-[]

SUBJECT: **Transition to SORA Price Alignment and Discounting for Singapore Dollar IRS**

Background

The Singapore Dollar (“SGD”) Swap Offer Rate (“SOR”) is scheduled to be discontinued after June 30, 2023.¹ To support market participants wishing to reduce their exposure to SOR as they seek to transition to the successor Singapore Overnight Rate Average (“SORA”)², Chicago Mercantile Exchange Inc. (“CME” or the “Clearing House”) proposes to facilitate a transition to SORA price alignment and discounting for certain CME cleared IRS contracts denominated in SGD. This initiative follows CME’s successful previous transitions of certain other CME cleared OTC IRS products to successor risk-free rate (“RFR”) price alignment and discounting (“PA/Discounting”) in 2020 and 2021, for example, those IRS denominated in Euros and U.S. Dollars, in each case ahead of the scheduled wider industry transition of outstanding IRS to reference the relevant RFR.³

CME will update the PA/Discounting protocol for CME cleared SGD IRS to SORA to take effect at close of business on February 24, 2023 (the “Transition”), as set out in this Clearing Advisory.

¹ SOR is the synthetic rate for deposits in SGD, which represents the effective cost of borrowing SGD synthetically by borrowing U.S. Dollars for the same maturity (utilizing the USD London Interbank Offered Rate (“USD LIBOR”) for the purposes of computation), and swap out the USD in return for the SGD. SOR is set by the Association of Banks in Singapore. USD LIBOR is scheduled cease publication in a “representative” manner immediately after June 30, 2023. As such, SOR will also be discontinued immediately after June 30, 2023. See: <https://abs.org.sg/benchmark-rates/sor-sibor-to-sora>

² LCH Limited transitioned SGD IRS to SORA price alignment and discounting in August 2021, see: <https://www.lch.com/membership/ltd-membership/ltd-member-updates/transition-sor-sora-paipaa-discounting>. LCH has announced its intention to convert outstanding SGD SOR IRS to equivalent SORA IRS on June 9, 2023, ahead of the cessation of the SOR benchmark rates following June 30, 2023, see: <https://www.lch.com/membership/ltd-membership/ltd-member-updates/lchs-consultation-conversion-outstanding-sgd-sor>. CME has discussed proposals with position holders to assist with the close out of open positions in SGD IRS referencing SOR ahead of the scheduled cessation of the SOR benchmark rates, with the final arrangements to be agreed in Q1 2023. Regardless of the arrangements for transition ahead of SOR discontinuation, a discounting transition from SOR to SORA will align CME SGD IRS price alignment and discounting with that of LCH, which will assist market participants wishing to transition to SGD SORA indexed clearing.

³ Price alignment is the adjustment used to reflect the overnight cost of funding collateral for a bilateral OTC swap contract to mitigate the basis risk between cleared and uncleared swaps. The discounting rate is used for the discount curve to calculate swap value. For example, see CME Clearing Advisory, October 16, 2020 confirming successful completion of the transition to SOFR PA/Discounting for CME cleared USD IRS: <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2020/10/Chadv20-402.pdf>.

Transition to SORA PA/Discounting

SORA is the average rate of overnight SGD borrowing transactions by banks in Singapore, calculated by reference to the volume-weighted average rate of borrowing transactions in the unsecured overnight interbank SGD cash market in Singapore between 8am and 6.15pm, Singapore time. SORA is administered and published by the Monetary Authority of Singapore (“MAS”) and is accessible at no charge on the MAS website.⁴

Publication of SORA by MAS began on July 1, 2005. SORA is computed by MAS based on actual transactions and meets the standards of international best practice set out in the IOSCO Principles for Financial Benchmarks.⁵

As part of regulatory and industry initiatives to transition away from certain key interbank offered rates (“IBORs”) and interest rate benchmarks, on August 30, 2019 the Association of Banks in Singapore and the Singapore Foreign Exchange Market Committee (“ABS-SFEMC”) recommended SORA as the most suitable and robust benchmark to replace SOR for interest rate derivatives denominated in SGD. MAS established the Steering Committee for SOR & SIBOR Transition to SORA, comprising senior representatives from key banks, relevant industry associations and MAS, to provide strategic direction and oversee the industry transition from SOR and the Singapore Interbank Offered Rate (“SIBOR”)⁶ to SORA (“SC-STs”).

In accordance with the SC-STs SORA Transition Roadmap⁷, market participants are preparing for the transition of bilateral and cleared OTC IRS from SOR to SORA. CME currently supports SOR interest rate swaps and in 2021 launched SORA Swaps to facilitate market participants in this transition process. In July 2021, the SC-STs made “Recommendations for Transition of Legacy SOR Contracts”, which included acknowledgement that the switch from SOR to SORA for PA/Discounting by CCPs would further reduce reliance on SOR derivatives by financial institutions looking to reduce their exposures to SOR. The SC-STs supports the proposals of CCPs to convert or replace centrally cleared SOR derivatives contracts at or before the expected discontinuation of SOR, although it also noted that market participants should not view such CCP conversions as the primary mode of transition.⁸

On October 16, 2020, as part of an industry wide transition for USD IRS, CME successfully completed the transition of the PA/Discounting protocol for CME cleared USD interest rate swap products from EFR to SOFR (the “USD IRS PA/Discounting Transition”). The transition process for USD IRS required a basis risk compensation mechanism⁹ that has not been required for other currency PA/Discounting transitions and is

⁴ Further details are available on the MAS website at <https://www.mas.gov.sg/monetary-policy/sora>. The SORA rate is published at <https://eservices.mas.gov.sg/statistics/dir/DomesticInterestRates.aspx>.

⁵ See: <https://www.mas.gov.sg/-/media/MAS/SORA/IOSCO-Statement.pdf?la=en&hash=14AD57BBE559FE6157F4E641481108025E3E37ED>

⁶ SIBOR is the daily reference rate set by the Association of Banks in Singapore and is based on the interest rates at which banks offer to lend unsecured funds to other banks in the Singapore wholesale money market. Certain SIBOR tenors were discontinued in 2022 and all SIBOR tenors will cease to be published from the end of 2024: <https://www.abs.org.sg/docs/library/timelines-to-cease-issuance-of-sor-derivatives-and-sibor-linked-financial-products.pdf>

⁷ See <https://abs.org.sg/benchmark-rates/transition-roadmap>

⁸ See SC-STs “Recommendations for Transition of Legacy SOR Contracts” (July 2021) available at: <https://abs.org.sg/docs/library/sc-sts-recommendations-for-transition-of-legacy-sor-contracts.pdf>. LCH Limited transitioned SGD IRS to SORA price alignment and discounting in August 2021, see: <https://www.lch.com/membership/ltd-membership/ltd-member-updates/transition-sor-sora-paipa-discounting>. As noted above, LCH has indicated its intention to convert SOR derivatives into SORA. CME continues to engage with CME SGD IRS position holders regarding proposals to facilitate the close out remaining open positions in such contracts at CME ahead of the June 30, 2023 final publication date.

⁹ As part of the USD IRS PA/Discounting Transition in October 2020, in response to market participant feedback, CME offered (i) a risk compensation mechanism for market participants affected by the discounting transition to SOFR in the form of mandatory assignment of compensatory SOFR/EFR basis swaps designed to replicate approximately the original discounting risk exposure of

not required for SGD IRS, given the short-dated nature of the products and the relatively small discounting risk in comparison to USD IRS. Therefore, while the approach to the Transition for SGD IRS set out in this filing closely follows the USD IRS PA/Discounting Transition process (and other similar CME PA/Discounting transitions) with regard to the cash adjustment process relating to the discounting transition, based on market participant feedback, CME determined not to apply a compensatory basis swap mechanism in this instance.

Summary of Transition Process

CME cleared SGD IRS products that currently utilize SOR for PA/Discounting will transition to SORA PA/Discounting as applicable, to take effect at close of business on Friday, February 24, 2023 (the “Transition Date”).

As part of the “single day” approach to the Transition and to mitigate the economic effects of the change in PA/Discounting protocol, “legacy” contracts in affected products will be subject to a mandatory cash adjustment process on the date of the Transition. As part of that process, CME will implement an offsetting cash adjustment mechanism under which a cash amount equal and opposite to the change in net present value of each cleared trade affected by the change to SORA discounting will be applied to the relevant position holder account to ensure that net cash flows for position holders impacted by the change to SORA discounting are zero on the date of the Transition. As with the USD IRS PA/Discounting Transition and the EUR IRS PA/Discounting Transition, the cash adjustment will be settled as part of the usual settlement variation (variation margin) cycle, calculated on the following Clearing Day after the Transition Date (in this case, Monday, February 27, 2023), and will be settled on the morning of Wednesday, March 1, 2023.

The Transition shall apply to all open positions in cleared swap contracts in SGD IRS outstanding on the Transition Date. Following the Transition, all CME cleared trades in affected products will be subject to SORA discounting, including existing cleared “legacy” swap contracts outstanding on the Transition Date and “new” contracts submitted for clearing after the Transition Date. Trades in affected products submitted for clearing after the Transition Date shall not be subject to the cash adjustment mechanism.

Further details on the Transition process are provided below.

CME has consulted with all CME position holders and Clearing Members to obtain feedback on the design and implementation of operational processes for the Transition. A summary of CME’s proposals for the Transition was provided to Clearing Members and position holders in December 2022, with further information provided on January 12, 2023, followed by operational testing and support provided by CME to the date of implementation, including test runs scheduled for February 7 and February 17, 2023. Following the successful USD IRS PA/Discounting Transition and the EUR IRS PA/Discounting Transition in 2020, market participants are familiar with CME’s approach and methodology for implementation of changes in PA/Discounting and the relevant operational processes have been tested in both test and production environments.

This Advisory Notice sets out the binding rules and operational processes under which CME Clearing will implement the transition of the price alignment and discounting protocols from SOR to SORA with respect to open cleared trades in affected CME cleared products at the Transition Date, and for the calculation of price alignment and discounting in relation to such products following the Transition.

Terms used but not defined in this Advisory Notice shall have the meaning set out in the rules of CME (the “Rulebook”).

the market participant prior to the transition to SOFR discounting, and (ii) a voluntary auction process to allow firms to close out these compensatory swaps if required.

CME cleared contracts subject to this Advisory Notice

The Transition will apply to CME cleared Singapore Dollar IRS contracts, each of which currently utilizes SOR for PA/Discounting (the "Affected Contracts").

Any Affected Contract accepted for clearing by CME after the Transition will be subject to SORA PA/Discounting from acceptance by the Clearing House and will not be subject to the cash adjustment process.

Terms and Operation of Transition Process

1. From close of business ("COB") on the Transition Date, CME Clearing will subject each open cleared trade in an Affected Contract to the following Transition process to update the SOR PA/Discounting protocol of such contract to SORA PA/Discounting:
 - (a) CME Clearing will calculate the net present value ("NPV") utilizing SOR (at closing curve levels on the Transition Date) for valuation and calculation of discounting and price alignment amount for each cleared trade in such Affected Contract. CME Clearing will then conduct an additional calculation to calculate the NPV utilizing SORA (at closing curve levels on the Transition Date) for valuation and calculation of discounting and price alignment amount for each cleared trade in such Affected Contract (the "Transition Calculation").
 - (b) CME Clearing will determine settlement variation for each cleared trade in such Affected Contract on the Transition Date utilizing SOR (at closing curve levels on the Transition Date) for valuation and calculation of discounting and price alignment amount for the end of day clearing cycle on the Transition Date.
2. At the next end of day clearing cycle following the Transition Date, for each cleared trade in such Affected Contract, CME Clearing will:
 - (a) determine settlement variation utilizing SORA for valuation and calculation of discounting and price alignment amount;
 - (b) apply to each position in a cleared trade in such Affected Contract an offsetting cash adjustment that is equal and opposite to the change in such position's NPV resulting from the change from SOR to SORA discounting, as determined by CME Clearing during the Transition Calculation ("Cash Adjustment"); and
 - (c) 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 each position arising from the discounting change such that the net cash flow in respect of the discounting change will be zero for each cleared trade in such Affected Contract per account.
3. Following the Transition Date, CME Clearing will apply SORA PA/Discounting to cleared trades in such Affected Contracts. The Cash Adjustment process will apply only to open cleared trades in relevant Affected Contracts at COB on the Transition Date. Any trade in such Affected Contract accepted for clearing by CME after the Transition Date will be subject to SORA PA/Discounting.
4. Coupon payments on Affected Contracts are not affected by the Transition and will remain linked to the relevant original interest rate index.

5. The terms of this Advisory Notice and the Transition process are binding on Clearing Members and position holders in all Affected Contracts, effective February 24, 2023. To the extent that there is any conflict between the Rulebook and the terms of this Advisory Notice with respect to the Transition process, this Advisory Notice shall prevail.

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

Operational information

CME Clearing will update the relevant information on the applicable PA/Discounting rate applicable to Affected Contracts in each case:

- In the case of IRS products, in the:
 - end of day operational reports (PAA Report and Trade Register report) made available by the Clearing House only to IRS clearing members via an sFTP site;
 - CME OTC IRS Bookkeeping document, made available to IRS Clearing Members and their customers on request; and
 - IRS Discounting Transition Report made available by the Clearing House only to IRS Clearing Members via an sFTP site on the Transition Date, illustrating the revised NPV for trades in Affected Contracts under the new discounting methodology and the relevant cash adjustment at the trade level for each position account;

Details of the SORA curves utilized for the purposes of discounting calculations for the Affected Contracts will also be made available by the Clearing House via an sFTP site.

Inquiries regarding the aforementioned may be directed to:

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