SUBMISSION COVER SHEET

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Registered Entity Identifier Code (optional): 21-125

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

Filing as a: ☐ **DCM** ☐ **SEF** ☒ **DCO** ☐ **SDR**

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 03/10/21 Filing Description: Modifications to Discounting and Price Alignment for Emerging Markets Interest Rate Swaps ("IRS") and Over the Counter Foreign Exchange ("OTC FX") Products to Transition to the Secured Overnight Financing Rate ("SOFR") and Euro Short Term Rate ("€STR")

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

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

Rule Numbers: See filing.

New Product **Please note only ONE product per Submission.**

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

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

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

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

Rule Numbers:

Christopher Bowen
Managing Director and Chief Regulatory Counsel
Legal Department

March 10, 2021

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 Emerging Markets Interest Rate Swaps ("IRS") and Over the Counter Foreign Exchange ("OTC FX") Products to Transition to the Secured Overnight Financing Rate ("SOFR") and Euro Short Term Rate ("€STR"). CME Submission No. 21-125

Dear Mr. Kirkpatrick:

Pursuant to Commodity Futures Trading Commission ("CFTC" or "Commission") Regulation 40.6(a), Chicago Mercantile Exchange Inc. ("CME" or the "Clearing House"), a registered derivatives clearing organization ("DCO") under the Commodity Exchange Act, as amended ("CEA" or "Act") hereby certifies to the Commission modifications applicable to certain Interest Rate Swap ("IRS") and over-the-counter foreign exchange ("OTC FX") swap products cleared by CME intended to (i) support and facilitate the cash and derivatives market transition to the Secured Overnight Financing Rate ("SOFR") by facilitating a transition to SOFR price alignment and discounting for certain CME cleared IRS and OTC FX swap contracts, and (ii) support and facilitate the cash and derivatives market transition from the European Money Markets Institute ("EMMI") Euro overnight index average ("EONIA") (which is due to cease in January 2022) to the replacement Euro Short Term Rate ("€STR") rate by facilitating a transition to €STR price alignment and discounting for certain CME cleared OTC FX swap contracts (the "Transition") effective at the close of business ("COB") on Friday, March 26, 2021 (the "Transition Date").

This initiative follows CME's successful July 2020 transition of CME cleared OTC Euro ("EUR") denominated IRS products from EONIA price alignment and discounting ("PA/Discounting") to €STR PA/Discounting and the subsequent transition of CME cleared U.S. Dollar ("USD") IRS products to SOFR PA/Discounting in October 2020, in each case coordinated with the wider industry.[1]

CME clears a range of OTC FX and OTC IRS in emerging market currencies that have not yet transitioned to SOFR or €STR PA/Discounting. As a result, in order to support the ongoing derivative market transition from EONIA to €STR and the ongoing transition to SOFR in USD cash and derivative markets, CME will update the PA/Discounting protocol for OTC FX and for remaining CME cleared IRS swaps to SOFR or to €STR, as applicable, the Transition, to take effect at the Transition Date. The modification to implement the Transition is set out in the Clearing Advisory Notice attached as Exhibit 1, effective March 26, 2021. CME

[1] 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.

is a systemically important derivatives clearing organization ("SIDCO")[2] and offers clearing for all products traded on the CME exchange, The Board of Trade of the City of Chicago, Inc., New York Mercantile Exchange, Inc., and Commodity Exchange, Inc. as well as other cleared products, and provides clearing services to third parties.

Background

Transition to SOFR PA/Discounting

In 2013, following global investigations concerning manipulation of self-reported interbank interest rates, the U.S. Financial Stability Oversight Council identified concerns regarding the use of the London Interbank Offered Rate ("LIBOR") benchmark and recommended that steps should be taken for international regulators and market participants to identify alternative interest rate benchmarks. In 2014 the Financial Stability Board ("FSB") published a report making recommendations for strengthening existing benchmarks for key interbank offered rates ("IBORs") and for promoting the development and adoption of alternative nearly risk-free reference rates where appropriate.

In response to these recommendations, in 2014 the Federal Reserve Board and the Federal Reserve Bank of New York convened the Alternative Reference Rates Committee ("ARRC")[3] and tasked the group with identifying a robust and transaction-based rate, derived from a deep and liquid market and compliant with the International Organization of Securities Commissions ("IOSCO") Principles for Financial Benchmarks ("Principles"),[4] to serve as an alternative reference rate to the LIBOR benchmark interest rate for USD ("USD LIBOR").[5] In 2017, the ARRC fulfilled this mandate by selecting SOFR, a reference rate administered by the Federal Reserve Bank of New York. SOFR provides a broad measure of the cost of borrowing USD cash overnight collateralized by Treasury securities and is based on overnight observable transactions in the active and liquid USD Treasury repo market.[6]

The ARRC adopted a Paced Transition Plan[7] for the development of markets for SOFR-linked products and to promote a successful transition from LIBOR in USD derivatives and other financial contracts. Consistent with that plan, the CME exchange launched trading in one- and three-month SOFR futures contracts in May 2018 and in October 2018, CME commenced clearing of over-the counter ("OTC") SOFR indexed USD swaps (SOFR overnight index swaps, LIBOR-SOFR basis swaps, and Fed Fund-SOFR basis swaps) utilizing SOFR discounting. The CME exchange launched trading and clearing of options on three-month SOFR futures in January 2020 and options on one-month SOFR futures in May 2020. CME SOFR

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

[3] The Alternative Reference Rates Committee is a group of private-market participants convened by the Federal Reserve Board and the Federal Reserve Bank of New York to help ensure a successful transition from use of LIBOR in USD derivatives and other financial contracts to their recommended robust and transaction based alternative reference rate, SOFR. The mandate of the ARRC is available at; https://www.newyorkfed.org/arrc.

[4] IOSCO published the Principles in July 2013. The Principles have been endorsed by the Financial Stability Board.

[5] The USD LIBOR rate is administered by ICE Benchmark Administration Limited ("IBA"), which is regulated and supervised by the UK Financial Conduct Authority ("FCA") as administrator of the relevant benchmark. The USD LIBOR rate is designed to provide an average rate at which certain international banks can borrow funds for certain tenors in the wholesale unsecured funding market. On March 5, 2021, the FCA announced the dates that panel bank submissions for all LIBOR settings will cease, after which representative LIBOR rates will no longer be available, with 1-week and 2-month USD LIBOR settings to end immediately after December 31, 2021 and remaining USD LIBOR settings immediately after June 30, 2023. See: https://www.fca.org.uk/news/press-releases/announcements-end-libor.

[6] Further details on the administration of SOFR are available on the Federal Reserve Bank of New York website at https://apps.newyorkfed.org/markets/autorates/sofr

[7] Further details on the ARRC's Paced Transition Plan are available on the Federal Reserve Bank of New York website at: https://www.newyorkfed.org/medialibrary/microsites/arrc/files/paced-timeline-plan.pdf

futures have become the leading source of SOFR price discovery and form an important part of CME's interest rate derivative product complex, alongside CME's benchmark Eurodollar and Fed Funds futures contracts.

The ARRC's Paced Transition Plan anticipates that in Q2 2021 central counterparties should cease to accept for clearing new swap contracts utilizing the Effective Federal Funds Rate ("EFFR") for calculation of price alignment (the adjustment used to reflect the overnight cost of funding collateral for a bilateral swap contract to mitigate the basis risk between cleared and uncleared swaps) and for the applicable discounting rate (used for the discount curve to calculate swap value). The ARRC anticipates that updating the PA/Discounting environment for cleared swaps from EFFR to SOFR will foster additional liquidity across the entire SOFR curve and thereby promote the adoption of SOFR and the transition away from LIBOR in USD derivatives and other financial contracts.

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 EFFR to SOFR (the "USD IRS PA/Discounting Transition").[8] Following the transition, all CME cleared USD interest rate swap products have been subject to SOFR PA/Discounting.

However, CME continues to accept for clearing a number of other OTC interest rate swap products (including Mexican Peso IRS and Non-Deliverable IRS across a number of emerging market currencies in the Latin America and Asia-Pacific regions) and also a range of OTC FX products, which utilize the EFFR for PA/Discounting. As a result, in order to further support the market adoption of SOFR, and consistent with the wider industry initiative to support the relevant milestones of the ARRC Paced Transition Plan to help promote the further development of SOFR liquidity, CME will implement a transition process for these remaining CME cleared interest rate swap and OTC FX products that utilize EFFR PA/Discounting to SOFR PA/Discounting on the basis set out in this filing.

CME did not transition Mexican Peso IRS and Non-Deliverable IRS alongside USD IRS in October 2020 based on feedback received from a diverse cross-section of market participants. Key benefits of decoupling the transition for USD IRS from the transition for these emerging market currency interest rate products include: (a) limiting the scope and operational complexity to our customers: it was considered that a narrow product focus on USD IRS would promote an orderly transition to SOFR PA/Discounting in October 2020; (b) recognizing that, based on market participant feedback, the transition process for USD IRS required a basis risk compensation mechanism[9] that was not required for Mexican Peso ("MXN") IRS and Non-Deliverable IRS in emerging market currencies, given the short dated nature of the products and the relatively small discounting risk in comparison to USD IRS, it was considered prudent to separate the discounting transition process for USD IRS from the process for emerging market currencies. Therefore, while the approach to the Transition for MXN IRS and Non-Deliverable IRS in the emerging market currencies set out set out in this filing closely follows the USD IRS PA/Discounting Transition process 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; and (c) it was considered that the additional price transparency and liquidity in the EFFR-SOFR basis market expected to arise as a result of the USD IRS discounting transition in October 2020 (and which has since

[8] 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

[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/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.

been demonstrated) would assist market participants in managing the transition to SOFR PA/Discounting in other currencies, such as MXN and the other emerging market currencies subject to the Transition set out in this submission.

Transition to €STR PA/Discounting

In September 2018 the European Central Bank ("ECB") convened a private sector working group on Euro risk free rates (the "ECB Working Group"),[10] which determined that €STR should replace EONIA as the new EUR risk free rate for all cash and derivative market products and contracts. €STR is calculated by the ECB and is based on the money market statistical reporting of the Eurosystem. Publication of €STR by the ECB began on October 2, 2019 under a reformed methodology for the calculation of EONIA, where EONIA is calculated as €STR plus a fixed spread of 8.5 basis points. €STR provides a broad measure of the cost of borrowing unsecured EUR cash on an overnight basis in wholesale markets based on a large number of banks contributing data and a significant transaction volume.[11]

The ECB Working Group has recommended that publication of EONIA be discontinued on January 3, 2022, which would necessitate a transition from EONIA to €STR for some products.[12] In August 2019 the ECB Working Group published a report analyzing the impact of the required transition from EONIA to €STR for EUR cash and derivatives products, which included a recommendation that cleared derivatives contracts transition from discounting methodology utilizing EONIA to €STR as early as possible.[13] Such a transition would require clearing houses to utilize €STR as a replacement for EONIA for the purposes of PA/Discounting. The ECB Working Group anticipates that updating the PA/Discounting environment for cleared swaps from EONIA to €STR will help promote liquidity in €STR cash and derivative contracts and prepare the market for discontinuation of EONIA in January 2022.

On July 24, 2020, as part of an industry-wide transition for EUR IRS, CME completed the transition of the PA/Discounting protocol for CME cleared EUR interest rate swap products from EONIA to €STR (the "EUR IRS PA/Discounting Transition"). Following the transition, all CME cleared EUR interest rate swap products have been subject to €STR PA/Discounting.

However, CME continues to accept for clearing a small number of OTC FX products that utilize EONIA for PA/Discounting. As a result, in order to further support the transition to €STR ahead of January 2022, CME will implement a transition process for these remaining CME cleared OTC FX products that utilize EONIA PA/Discounting to €STR PA/Discounting on the basis set out in this submission.

Summary of Transition Process

[10] The ECB Working Group was also convened by the Financial Services and Markets Authority ("FSMA"), the European Securities and Markets Authority ("ESMA") and the European Commission.

[11] Further details on the administration of €STR are available on the ECB website at www.ecb.europa.eu.

[12] See EMMI announcement: https://www.emmi-benchmarks.eu/euribor-eonia-org/about-eonia.html

[13] See ECB Working Group Report "On the impact of the transition from EONIA to the €STR on cash and derivative products" (August 19, 2019): https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190819~9dbe3c0ce6.en.html. The report goes on to note that the switch to €STR PA/Discounting would mean that cleared derivatives will become subject to a new discounting regime and that "compensation schemes should be devised to counter adverse price effects on derivatives subject to the transition."

IRS products and OTC FX products that currently utilize either EONIA or SOFR for PA/Discounting will transition to €STR or SOFR PA/Discounting as applicable, the Transition, to take effect at close of business on 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 Transition Date. 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 SOFR or €STR discounting (as applicable) will be applied to the relevant position holder account to ensure that net cash flows for position holders impacted by the change to SOFR or €STR discounting (as applicable) 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 March 29, 2021) and will be settled the following morning.

The Transition shall apply to all open positions in cleared swap contracts in affected products outstanding on the Transition Date. Following the Transition, all CME cleared transactions in affected products will be subject to SOFR or €STR discounting, as applicable, 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.

Overview of Engagement with Market Participants and Industry Groups

As noted above, the transition to €STR PA/Discounting is a key part of the ECB Working Group recommendations to facilitate the wider transition from the use of EONIA to the use of €STR in cash and derivatives markets.[14] The transition and the development of markets for €STR-linked products is supported by regulatory authorities and market participants. Similarly, the transition to SOFR PA/Discounting for the remaining CME cleared OTC IRS products and for OTC FX products utilizing EFFR for PA/Discounting will provide further support for the milestones within the ARRC's Paced Transition Plan for the transition and the development of markets for SOFR-linked products, which is supported by regulatory authorities and market participants.

The SOFR and €STR rates are each derived from an active, well defined and deeply liquid market and in each case are produced in a transparent manner based on observable transactions. On this basis, CME has determined that €STR and SOFR are each 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 €STR and SOFR through the changes set out in this filing.

CME has consulted with a diverse cross-section of market participants to obtain feedback on the operational processes for the Transition. A summary of CME's Transition plan was provided to market participants and

[14] CME will utilize €STR for PA/Discounting on a "flat" basis, *i.e.,* without any spread, in accordance with the ECB Working Group's recommendations. 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.

made publicly available on December 18, 2020 and further details were provided by CME to market participants in January 2021, followed by operational testing and support prior to the date of implementation.[15] 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.

The modifications 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 on the Transition Date.

Further details on the Transition process are set out below:

Operational Overview of Transition Process

The Transition will apply to cleared trades in the following CME cleared products, each of which currently utilizes EONIA or EFFR for PA/Discounting as indicated below (the "Affected Contracts"):

IRS Products

IRS products in the following currencies that currently utilize EFFR or EFFR-based PA/Discounting:

- Interest Rate Swaps in the following currencies:
  - MXN (Fixed / Float IRS only)
- Non-Deliverable Interest Rate Swaps ("NDIRS")[16] in the following currencies:
  - Brazilian Real ("BRL")
  - Chilean Peso ("CLP")
  - Colombian Peso ("COP")
  - South Korean Won ("KRW")
  - Indian Rupee ("INR")
  - Chinese Yuan ("CNY")

OTC FX Products

- Non-Deliverable Forwards ("NDFs") in the following currency pairs, utilizing USD as settlement currency and EFFR PA/Discounting:
  - USD BRL
  - USD CNY
  - USD KRW
  - USD Russian Ruble ("RUB")
  - USD CLP
  - USD INR

[15] See: https://www.cmegroup.com/trading/interest-rates/files/emerging-market-discounting-transition-proposal-dec-2020.pdf for December 2020 proposal and https://www.cmegroup.com/trading/interest-rates/files/emerging-market-discounting-and-price-alignment-transition-detailed-deck.pdf for January 2021 operational detail deck.
[16] Note that all payments in respect of Non-Deliverable Interest Rate Swaps are made in USD (including any settlement variation payment, price alignment amount, coupon payments, option and upfront payments).

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- USD Philippine Peso (“PHP”)
- USD Indonesian Rupiah (“IDR”)
- USD New Taiwan Dollar (“TWD”)
- USD COP
- USD Peruvian Soles (“PEN”)

- Cash Settled Forwards (“CSFs”) in the following currency pairs, utilizing USD as settlement currency and EFFR PA/Discounting:

  - Australian Dollar (“AUD”) USD
  - EURUSD
  - British Pound (“GBP”) USD
  - New Zealand Dollar (“NZD”) USD
  - USD Czech Koruna (“CZK”)
  - USD Danish Krone (“DKK”)
  - USD Hong Kong Dollar (“HKD”)
  - USD Hungarian Forint (“HUF”)
  - USD Israeli New Shekel (“ILS”)
  - USDMXN
  - USD Malaysian Ringgit (“MYR”)
  - USD Norwegian Krone (“NOK”)
  - USD Poland zloty (“PLN”)
  - USD Swedish Krona (“SEK”)
  - USD Thai Baht (“THB”)
  - USD Turkish lira (“TRY”)
  - USD South African Rand (“ZAR”)

- Cash Settled Forwards in the following currency pairs, utilizing EUR as settlement currency and EONIA Discounting:

  - EURAUD
  - EUR Swiss Franc (“CHF”)

- FX Options in the following currency pairs, utilizing USD as settlement currency and EFFR PA/Discounting:

  - AUDUSD
  - EURUSD
  - GBPUSD

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

<u>Change of PA/Discounting environment from EONIA to €STR / from EFFR to SOFR</u>

The change in PA/Discounting to €STR/SOFR, as applicable, 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 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 March 26, 2021 (the "Transition Date") will be included in the following Transition operational process to update the PA/Discounting environment to SOFR / €STR PA/Discounting, as applicable:

- 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 EONIA-based discounting / EFFR-based discounting valuation methodology, as applicable for the relevant Affected Contract:
  - MXN IRS: discount curves implied using Spot FX, FX Forwards, cross-currency swaps and EFFR-based curve[17]
  - NDIRS: discount curves implied using Spot FX, FX Forwards, cross-currency swaps and EFFR curve
  - OTC FX settled in USD: future cashflows calculated in the quote currency and converted to settlement currency (USD) using the CME determined FX forward rate, before discounting back to value date using USD discounting using EFFR curve
  - OTC FX settled in EUR: future cashflows calculated in the quote currency and converted to settlement currency (EUR) using the CME determined FX forward rate, before discounting back to value date using EUR discounting using EONIA curve

  The calculation will therefore be based in part on the relevant EFFR / EONIA 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 SOFR/€STR-based discounting valuation methodology, as appliable for the relevant Affected Contract:
  - MXN IRS: discount curves implied using Spot FX, FX Forwards, cross-currency swaps and SOFR-based curve
  - NDIRS: discount curves implied using Spot FX, FX Forwards, cross-currency swaps and SOFR curve
  - OTC FX settled in USD: future cashflows calculated in the quote currency and converted to settlement currency (USD) using the CME determined FX forward rate, before discounting back to value date using USD discounting using SOFR curve
  - OTC FX settled in EUR: future cashflows calculated in the quote currency and converted to settlement currency (EUR) using the CME determined FX forward rate, before discounting back to value date using EUR discounting using €STR curve

  The calculation will be based in part on the relevant SOFR / €STR 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 EONIA to €STR PA/Discounting or from EFFR to SOFR PA/Discounting, as applicable.
- From the completion of the end of day clearing cycle on the Transition Date, the Affected Contracts will be subject to either €STR PA/Discounting or SOFR PA/Discounting (as applicable) 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.[18] Any trade in an Affected Contract

[17] Details on the current and proposed curve generation process for MXN IRS and NDIRS are provided in the January 2021 operational deck published by CME at: https://www.cmegroup.com/trading/interest-rates/files/emerging-market-discounting-and-price-alignment-transition-detailed-deck.pdf for January 2021 operational detail deck.

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

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accepted for clearing by CME after the Transition Date will be subject to €STR / SOFR PA/Discounting (as applicable) 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 EONIA to €STR / from EFFR to SOFR, as applicable, 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 EONIA to €STR or from EFFR to SOFR, as applicable.[19] 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 Example for EFFR to SOFR Transition

	Net Present Value on Transition Date				
Trade	**EFFR Discounted**	**SOFR Discounted**	**NPV Change**	**Offsetting Adjustment**	**Net Cash Flow**
Position 1	$442,528	$456,214	$13,686	($13,686)	$0
Position 2	($208,621)	($212,879)	($4,258)	$4,258	$0
Position 3	$26,730	$27,000	$270	($270)	$0
Position 4	($726,075)	($756,328)	($30,253)	$30,253	$0
Position 5	$528,961	$545,321	$16,360	($16,360)	$0
Total	**$63,523**	**$59,328**	**($4,195)**	**$4,195**	**$0**

Using Position 1 as an example, where the holder of the position in a cleared trade receives a positive change in NPV of that position resulting from the change to SOFR 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 holder of Position 1 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.

In the case of Position 2, where the holder of the position in a cleared trade receives a negative change in NPV of that position resulting from the change to SOFR 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 holder of Position 2 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

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

positions will be determined utilizing SOFR 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 depending on the Affected Contract, EONIA discounting risk will be replaced by €STR discounting risk, as determined by the €STR closing curve on the date of the Transition, and EFFR discounting risk will be replaced by SOFR discounting risk, as determined by the SOFR closing curve on the date of the Transition, as applicable). 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 discounting[20], CME will not be providing any process for risk compensation to account for the change in discounting risk profile arising from the Transition for the following reasons:

- in the case of EONIA discounting, given the fixed nature of the spread between EONIA and €STR due to the methodology used for the calculation of EONIA (which is equal to €STR plus a fixed spread of 8.5 basis points), as with the EUR IRS PA/Discounting Transition, it is not necessary to provide a process for risk compensation to account for the change in discounting risk profile as this is known to market participants;
- in the case of EFFR discounting and the transition to SOFR discounting for the relevant Affected Contracts, unlike the USD IRS PA/Discounting Transition, CME 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. Additionally, following discussions with market participants in formulating proposals for the Transition, it was concluded that the additional price transparency and liquidity in the EFFR-SOFR basis market that has arisen following the USD IRS PA/Discounting Transition in October 2020 is sufficient to exclude any process for risk compensation.

In each case, CME's approach to risk compensation has been discussed with market participants and is understood to be consistent with the needs and expectations of market participants.

Post-Transition Price Alignment Calculation: NDIRS and MXN IRS

MXN IRS is settled in Mexican Pesos. Following the Transition Date, in order to account for the USD funding used by most market participants, the price alignment rate for MXN NDIRS will be calculated by CME based on the SOFR rate, adjusted by the USD/MXN exchange rate as price alignment is paid in Mexican Pesos. This MXN price alignment rate will then be applied to the standard price alignment calculation utilizing the adjusted NPV from the previous business day and the day count to determine the price alignment amount for MXN IRS contracts on each calculation day following the Transition Date.

All NDIRS are settled in USD. Following the Transition Date, the price alignment rate for the relevant NDIRS contract will be calculated by CME based on the SOFR rate, utilizing the adjusted NPV from the previous business day (calculated in local currency and converted into USD using CME's overnight FX rate) and the day count to determine the price alignment amount for the relevant NDIRS on each calculation day following the Transition Date.

[20] 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.

Post-Transition Price Alignment Calculation: OTC FX

EURAUD and EURCHF CSFs are settled in EUR. Following the Transition Date, the price alignment rate for the relevant CSF contracts will be calculated by CME based on the €STR rate, utilizing the mark-to-market amount from the previous business day and the day count to determine the price alignment amount for the relevant CSF on each calculation day following the Transition Date.

NDFs, FX Options, and the remaining CSFs are settled in USD. Following the Transition Date, the price alignment rate for the relevant contracts will be calculated by CME based on the SOFR rate, utilizing the mark-to-market amount from the previous business day and the day count to determine the price alignment amount for the relevant FX contract on each calculation day following the Transition Date.

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 March 26, 2021 and €STR / SOFR (as applicable) 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:

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

Details of the €STR / SOFR 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:

CME recognizes 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 market participants 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 that both took place in 2020. 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 €STR / SOFR PA/Discounting (as applicable) for positions in the Affected Contracts with minimal operational complexity for market participants. Based on the feedback from market participants and wider industry initiatives, the Transition provides for a Cash Adjustment to neutralize the one-time valuation change arising from the switch to the €STR / SOFR discounting curve (as applicable). However, the Transition does not include a mechanism to account for changes to the original risk profile of position holders caused by the transition to €STR / SOFR PA/Discounting. In the case of EONIA discounted products, market participants have deemed such a mechanism unnecessary due to the fixed nature of the spread between €STR and EONIA and therefore CME has adopted an approach consistent with these practices. Furthermore, in the case of the Affected Contracts subject to the Transition which utilize EFFR PA/Discounting, CME 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.

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

The Clearing House IRS Risk Committee reviewed the Transition proposal in the January 2021 meeting of the IRS Risk Committee and no objections were raised to the Transition proposals. The Clearing House Oversight Committee ("CHOC") reviewed the Transition proposal in the February 2021 meeting of the CHOC and no objections were raised to the Transition proposals.[21]

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

Derivatives Clearing Organization Core Principles ("DCO Core Principles") Analysis in Connection with the Transition and Advisory Notice

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

DCO Core Principle D – Risk Management: Following extensive market consultation, the implementation of the 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 extensive outreach to customers, CME understands that market participants support CME's approach that the Clearing House will not be providing any process for risk

[21] 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".

compensation to account for the change in discounting risk profile. This approach is consistent with the needs and expectations of market participants.

DCO 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 EFFR to SOFR or from EONIA to €STR, as applicable. CME has taken appropriate steps to provide market participants with sufficient information to enable those market participants to identify and evaluate effectively the risk associated with holding positions in the Affected Contracts at the time of Transition and thereafter. The operational workflows and legal basis for the Transition have been made publicly available.

DCO 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 remaining elements of an industry-wide initiative to transition interest rate swaps and other products from EONIA to €STR discounting and from EFFR to SOFR discounting, as applicable, in line with the recommendations of the relevant industry working groups, which in turn are widely supported by market participants and regulatory authorities as promoting the further market adoption of SOFR and €STR. CME has engaged with market participants 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 on March 26, 2021.

Pursuant to Section 5c(c)(1) of the CEA and CFTC Regulation 40.6(a), CME certifies that rule modifications 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

CME Group | Advisory Notice

TO: Clearing Member Firms
Back Office Managers

DATE: March 10, 2021

FROM: CME Clearing

NOTICE #: 21-087

SUBJECT: **Modifications to Discounting and Price Alignment for Emerging Markets Interest Rate Swaps ("IRS") and Over the Counter Foreign Exchange ("OTC FX") Products to Transition to the Secured Overnight Financing Rate ("SOFR") and Euro Short Term Rate ("€STR")**

Background

In July 2020, Chicago Mercantile Exchange Inc. ("CME" or "CME Clearing") completed the transition of CME cleared OTC Euro ("EUR") denominated IRS products from EONIA[1] price alignment and discounting ("PA/Discounting") to the Euro Short Term Rate ("€STR"). In October 2020, CME completed the transition of CME cleared U.S. Dollar ("USD") IRS products from Effective Federal Funds Rate ("EFFR") PA/Discounting to the Secured Overnight Financing Rate ("SOFR").[2] In each case, the relevant transition was coordinated with wider industry initiatives.

CME clears a range of OTC FX and OTC IRS in emerging market currencies that have not yet transitioned to SOFR or €STR PA/Discounting. As a result, in order to support the ongoing derivative market transition from EONIA to €STR and the ongoing transition to SOFR in USD cash and derivative markets, effective March 26, 2021, and pending all relevant Commodity Futures Trading Commission ("CFTC") regulatory review periods, CME will update the PA/Discounting protocol for CME cleared OTC FX and for remaining CME cleared IRS and Non-Deliverable IRS to SOFR or to €STR, as applicable (the "Transition"), to take effect at close of business on March 26, 2021 (the "Transition Date").

Transition to SOFR PA/Discounting

In 2017 the Alternative Reference Rates Committee ("ARRC"), convened by the Federal Reserve Board and the Federal Reserve Bank of New York, selected SOFR to serve as a robust and transaction-based alternative reference rate to the USD London Interbank Offered Rate benchmark rate ("LIBOR").[3] SOFR is

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[1] EONIA is the European Money Markets Institute ("EMMI") Euro overnight index average.

[2] 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.

[3] The LIBOR rate is administered by ICE Benchmark Administration Limited, which is regulated and supervised by the UK Financial Conduct Authority ("FCA") as administrator of the relevant benchmark. The LIBOR rate is designed to provide an average rate at which certain international banks can borrow funds for certain tenors in the wholesale unsecured funding market. On March 5, 2021, the FCA announced the dates that panel bank submissions for all LIBOR settings will cease, after which representative LIBOR rates will no longer be available, with 1-week and 2-month USD LIBOR settings to end immediately after December 31, 2021 and remaining USD LIBOR settings immediately after June 30, 2023. See: https://www.fca.org.uk/news/press-releases/announcements-end-libor.

administered by the Federal Reserve Bank of New York and provides a broad measure of the cost of borrowing USD cash overnight collateralized by Treasury securities, based on observable transactions in the active and liquid USD Treasury repo market.

The ARRC's Paced Transition Plan for the phasing-in of SOFR as the alternative reference rate to LIBOR anticipates that by Q2 2021 central counterparties should cease to accept for clearing new swap contracts utilizing the EFFR for calculating price alignment (the adjustment used to reflect the overnight cost of funding collateral for a bilateral swap contract to mitigate the basis risk between cleared and uncleared swaps) and for the applicable discounting rate (used for the discount curve to calculate swap value). The ARRC anticipates that updating the PA/Discounting environment for cleared swaps from EFFR to SOFR will foster additional liquidity across the entire SOFR curve and thereby promote the adoption of SOFR and the transition away from LIBOR in USD derivatives and other financial contracts. On October 16, 2020, as part of an industry wide transition for USD IRS, CME completed the successful transition of the PA/Discounting protocol for CME cleared USD interest rate swap products from EFFR to SOFR (the "USD IRS PA/Discounting Transition").[4] Following the USD IRS PA/Discounting Transition, all CME cleared USD interest rate swap products have been subject to SOFR PA/Discounting.

CME continues to accept for clearing a number of other OTC interest rate swap products (including Mexican Peso IRS and Non-Deliverable IRS across a number of emerging market currencies in the Latin America and Asia-Pacific regions) and also a range of OTC FX products, which each utilize the EFFR for PA/Discounting[5]. As a result, in order to further support the market adoption of SOFR, and consistent with the wider industry initiative to support the relevant milestones of the ARRC Paced Transition Plan to help promote the further development of SOFR liquidity, CME will implement a transition process for these remaining CME cleared interest rate swap and OTC FX products that utilize EFFR PA/Discounting to SOFR PA/Discounting on the basis set out in this Clearing Advisory Notice.

Transition to €STR PA/Discounting

In September 2018 the European Central Bank ("ECB") convened a private sector working group on Euro risk free rates (the "ECB Working Group"),[6] which determined that €STR should replace EONIA as the new EUR risk free rate for all cash and derivative market products and contracts, with EONIA due to be discontinued on January 3, 2022. €STR is calculated by the ECB and provides a broad measure of the cost of borrowing unsecured EUR cash on an overnight basis in wholesale markets based on a large number of banks contributing data and a significant transaction volume.[7] The ECB Working Group has recommended that cleared derivatives contracts should transition from discounting methodology utilizing EONIA to €STR as early as possible.[8] The ECB Working Group anticipates that updating the PA/Discounting environment for cleared swaps from EONIA to €STR will help promote liquidity in €STR cash and derivative contracts and prepare the market for discontinuation of EONIA in January 2022.

[4] 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

[5] CME did not transition Mexican Peso IRS and Non-Deliverable IRS alongside USD IRS in October 2020, based on feedback received from a diverse cross-section of market participants recommending a later transition for non-USD IRS.

[6] The ECB Working Group was also convened by the Financial Services and Markets Authority ("FSMA"), the European Securities and Markets Authority ("ESMA") and the European Commission.

[7] Further details on the administration of €STR are available on the ECB website at www.ecb.europa.eu.

[8] See ECB Working Group Report "On the impact of the transition from EONIA to the €STR on cash and derivative products" (August 19, 2019): https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190819~9dbe3c0ce6.en.html. The report goes on to note that the switch to €STR PA/Discounting would mean that cleared derivatives will become subject to a new discounting regime and that "compensation schemes should be devised to counter adverse price effects on derivatives subject to the transition."

On July 24, 2020, as part of an industry-wide transition for EUR IRS, CME completed the transition of the PA/Discounting protocol for CME cleared EUR interest rate swap products from EONIA to €STR (the "EUR IRS PA/Discounting Transition"). Following the transition, all CME cleared EUR interest rate swap products have been subject to €STR PA/Discounting. However, CME continues to accept for clearing a small number of OTC FX products that utilize EONIA for PA/Discounting. As a result, in order to further support the transition to €STR ahead of January 2022, CME will implement a transition process for these remaining CME cleared OTC FX products that utilize EONIA PA/Discounting to €STR PA/Discounting on the basis set out in this Clearing Advisory Notice.

Summary of Transition Process

CME cleared IRS products and OTC FX products that currently utilize either EONIA or SOFR for PA/Discounting will transition to €STR or SOFR PA/Discounting as applicable, the Transition, to take effect on the Transition Date, the close of business on March 26, 2021.

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 SOFR or €STR discounting (as applicable) will be applied to the relevant position holder account to ensure that net cash flows for position holders impacted by the change to SOFR or €STR discounting (as applicable) 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 March 29, 2021) and will be settled the following morning.

The Transition shall apply to all open positions in cleared swap contracts in affected products outstanding on the Transition Date. Following the Transition, all CME cleared transactions in affected products will be subject to SOFR or €STR discounting, as applicable, 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 a diverse cross-section of market participants 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 market participants and made publicly available on December 18, 2020 and further details were provided by CME to market participants in January 2021, followed by operational testing and support provided by CME to the date of implementation.[9] 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.

Based on feedback from market participants, the Transition includes a cash adjustment mechanism designed to mitigate valuation changes for market participants arising from the change in discounting

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[9] See: https://www.cmegroup.com/trading/interest-rates/files/emerging-market-discounting-transition-proposal-dec-2020.pdf for December 2020 proposal and https://www.cmegroup.com/trading/interest-rates/files/emerging-market-discounting-and-price-alignment-transition-detailed-deck.pdf for January 2021 operational detail deck.

environment from EONIA to €STR or from EFFR to SOFR (as applicable),[10] further details of which are set out in this Advisory Notice. Unlike the October 2020 USD IRS PA/Discounting Transition, the Transition does not include a mechanism to account for or to compensate for changes to the original risk profile of position holders caused by the transition to €STR / SOFR PA/Discounting. In the case of EONIA discounted products, market participants have deemed such a mechanism unnecessary due to the fixed nature of the spread between €STR and EONIA. In the case of the products which utilize EFFR PA/Discounting, CME determined that the size of the discounting risk carried in the relevant 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.

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 EONIA to €STR or from EFFR to SOFR (as applicable) 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").

CME Cleared Contracts Subject to the Transition and this Advisory Notice

The Transition will apply to the following CME cleared products, each of which currently utilizes EONIA or EFFR for PA/Discounting as indicated below (the "Affected Contracts"):

IRS Products

IRS products in the following currencies that currently utilize EFFR or EFFR-based PA/Discounting:

- Interest Rate Swaps in the following currencies:
    - Mexican Peso ("MXN") (Fixed / Float IRS only)
- Non-Deliverable Interest Rate Swaps ("NDIRS")[11] in the following currencies:
    - Brazilian Real ("BRL")
    - Chilean Peso ("CLP")
    - Colombian Peso ("COP")
    - South Korean Won ("KRW")
    - Indian Rupee ("INR")
    - Chinese Yuan ("CNY")

OTC FX Products

- Non-Deliverable Forwards ("NDFs") in the following currency pairs, utilizing USD as settlement currency and EFFR PA/Discounting:
    - USD BRL
    - USD CNY

[10] Valuation changes will be determined by the discounting risk for the portfolio and the relative levels of the EONIA and €STR forward curves / the relative levels of the EFFR and SOFR forward curves (as applicable) on the Transition Date in each case.
[11] Note that all payments in respect of Non-Deliverable Interest Rate Swaps are made in USD (including any settlement variation payment, price alignment amount, coupon payments, option and upfront payments).

- USD KRW
- USD Russian Ruble ("RUB")
- USD CLP
- USD INR
- USD Philippine Peso ("PHP")
- USD Indonesian Rupiah ("IDR")
- USD New Taiwan Dollar ("TWD")
- USD COP
- USD Peruvian Soles ("PEN")

- Cash Settled Forwards ("CSFs") in the following currency pairs, utilizing USD as settlement currency and EFFR PA/Discounting:

  - Australian Dollar ("AUD") USD
  - EURUSD
  - British Pound ("GBP") USD
  - New Zealand Dollar ("NZD") USD
  - USD Czech Koruna ("CZK")
  - USD Danish Krone ("DKK")
  - USD Hong Kong Dollar ("HKD")
  - USD Hungarian Forint ("HUF")
  - USD Israeli New Shekel ("ILS")
  - USDMXN
  - USD Malaysian Ringgit ("MYR")
  - USD Norwegian Krone ("NOK")
  - USD Poland zloty ("PLN")
  - USD Swedish Krona ("SEK")
  - USD Thai Baht ("THB")
  - USD Turkish lira ("TRY")
  - USD South African Rand ("ZAR")

- Cash Settled Forwards in the following currency pairs, utilizing EUR as settlement currency and EONIA PA/Discounting:

  - EURAUD
  - EUR Swiss Franc ("CHF")

- FX Options in the following currency pairs, utilizing USD as settlement currency and EFFR PA/Discounting:

  - AUDUSD
  - EURUSD
  - GBPUSD

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

<u>Terms and Operation of Transition Process</u>

<u>Affected Contracts subject to EONIA PA/Discounting:</u>

1. At the close of business ("COB") on the Transition Date, where an Affected Contract is subject to EONIA PA/Discounting CME Clearing will subject each open cleared trade in that Affected Contract

to the following Transition process to update the EONIA PA/Discounting protocol of such contract to €STR PA/Discounting:

(a) CME Clearing will calculate the net present value ("NPV") utilizing EONIA (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 €STR (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 "€STR Transition Calculation").

(b) CME Clearing will determine settlement variation for each cleared trade in such Affected Contract on the Transition Date utilizing EONIA (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 €STR 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 EONIA to €STR discounting, as determined by CME Clearing during the €STR Transition Calculation ("€STR 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 €STR Cash Adjustment) in accordance with CME Rule 814. The relevant €STR 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 €STR PA/Discounting to cleared trades in such Affected Contracts. The €STR 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 €STR PA/Discounting.

<u>Affected Contracts subject to EFFR PA/Discounting:</u>

4. At the COB on the Transition Date, where an Affected Contract is subject to EFFR PA/Discounting CME Clearing will subject each open cleared trade in that Affected Contract to the following Transition process to update the EFFR PA/Discounting protocol of such contract to SOFR PA/Discounting:

   (a) CME Clearing will calculate the NPV utilizing EFFR (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 SOFR (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 "SOFR Transition Calculation").

   (b) CME Clearing will determine settlement variation for each cleared trade in such Affected Contract on the Transition Date utilizing EFFR (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.

5. 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 SOFR 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 EFFR to SOFR discounting, as determined by CME Clearing during the SOFR Transition Calculation ("SOFR 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 SOFR Cash Adjustment) in accordance with CME Rule 814. The relevant SOFR 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.

6. Following the Transition Date, CME Clearing will apply SOFR PA/Discounting to cleared trades in such Affected Contracts. The SOFR Cash Adjustment process will apply only to open cleared trades in such 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 SOFR PA/Discounting.

<u>All Affected Contracts</u>

7. Coupon payments on Affected Contracts are not affected by the Transition and will remain linked to the relevant original interest rate index.

8. The terms of this Advisory Notice and the Transition process are binding on Clearing Members and position holders in all Affected Contracts, effective March 26, 2021. 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 relevant SOFR Cash Adjustment / €STR Cash Adjustment process is a mandatory process. The Transition and the relevant 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.

<u>Operational Information</u>

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

Details of the €STR / SOFR 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.

Additional details regarding the Transition may be viewed in ***CME Submission No. 21-125***.

Inquiries regarding the aforementioned may be directed to:

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