

TO: Clearing Member Firms
Back Office Managers

DATE: April 25, 2024

FROM: CME Clearing

NOTICE #: 24-115

SUBJECT: **Modification of Cleared Over-the-Counter (“OTC”) Canadian Dollar (“CAD”) Denominated Interest Rate Swap Products Referencing the Canadian Dollar Offered Rate (“CDOR”) and Limitation of Acceptance for Clearing**

Background

On May 16, 2022 Refinitiv Benchmark Services (UK) Limited (“RBSL”), the administrator of CDOR, announced that it would cease the calculation and publication of all remaining tenors of CDOR immediately following final publication on Friday June 28, 2024 (the “CDOR Cessation Date”) (the “RBSL Announcement”).¹

In response to the RBSL Announcement, on May 16, 2022, the International Swaps and Derivatives Association, Inc. (“ISDA”) published a statement confirming that the RBSL Announcement constitutes an Index Cessation Event under the ISDA 2020 IBOR Fallbacks Supplement, the 2021 ISDA Interest Rate Derivatives Definitions and the ISDA 2020 IBOR Fallbacks Protocol in respect of all remaining CAD CDOR settings referenced in derivative contracts incorporating the relevant ISDA terms. ISDA further confirmed that, as a result, the fallback ISDA Spread Adjustment (which determines the Fallback Rate of a CAD CDOR swap as defined under the ISDA contractual documentation) published by Bloomberg Index Services Limited (“BISL”) was fixed as of the date of the announcement for such contracts.²

The ISDA contractual fallbacks for uncleared derivatives provide that CAD CDOR swaps will be amended to reference the relevant Fallback Rate forms of the Canadian Overnight Repo Rate Average rate (“CORRA”) incorporating the fixed ISDA Spread Adjustment on the first Toronto business day immediately following the CDOR Cessation Date (July 2, 2024, the “Index Cessation Effective Date” within the meaning of the ISDA contractual fallbacks).

In response to the RBSL Announcement and the related ISDA statement, Bloomberg issued a Technical Notice confirming that May 16, 2022 was the “Spread Adjustment Fixing Date” for all CDOR tenors (other than the 6-month and 12-month tenors that were previously fixed on November 12, 2020) and Bloomberg published the fixed Spread Adjustment for CAD 3M CDOR of 0.32138% (the “Spread Adjustment”), as well as other relevant spread adjustment rates.³

As a result of the RBSL Announcement, given that CAD CDOR will cease to be published after June 28, 2024, market participants are required to put in place appropriate mechanisms to implement a transition from CAD CDOR to successor rates.

¹ RBSL Announcement available at: https://www.lseg.com/content/dam/ftse-russell/en_us/documents/announcement/cdor-cessation-notice.pdf and https://www.lseg.com/content/dam/ftse-russell/en_us/documents/consultation/cdor-outcome-statement.pdf

² ISDA statements available at: <https://www.isda.org/2022/05/16/isda-statement-on-rbsl-cdor-announcement/> and <https://assets.isda.org/media/6f355af1/2207a41a-pdf/>

³ See Bloomberg Technical Notice, available at https://assets.bbbhub.io/professional/sites/10/IBOR-Fallbacks_CDOR_Cessation_Technical-Note_220516.pdf

CME cleared CAD CDOR IRS Contracts (the “Affected CAD CDOR Swaps”) currently incorporate the ISDA “fallback” provisions to provide for contractual fallback to the spread and term adjusted CORRA rate on an Index Cessation Effective Date.⁴ However, following industry consultation and the successful implementation of previous IBOR conversion processes effected by CME, rather than rely on existing contractual fallbacks in CME Rule 90102.H. (“Application of Permanent Cessation Fallbacks”) for CAD CDOR IRS on the “Index Cessation Effective Date”, CME will, subject to regulatory review:

- undertake a series of CCP-led conversions of CAD CDOR swaps into:
 - corresponding standardized CORRA overnight index swaps (“OIS”) accounting for the ISDA Spread Adjustment on the floating leg of such OIS (each resulting swap, a “Forward Starting CORRA OIS”); and
 - where applicable, corresponding short-dated CME cleared CAD CDOR IRS (“Short Dated CAD CDOR Swap”) to account for remaining floating and fixed coupons under the original CAD CDOR swap),

with a cash adjustment mechanism to compensate for any resulting change in valuation and accounting for the ISDA Spread Adjustment; and

- following the relevant “Index Cessation Effective Date,” provide a limited clearing service in respect of CAD CDOR Swaps in order to continue to support clearing of any CAD CDOR Swap that is spot or forward starting and results from the exercise of a bilateral (uncleared) Swaption contract exercise after the Index Cessation Effective Date. CME will subject any eligible swaps accepted for clearing after the Index Cessation Effective Date to a similar conversion process on the day of acceptance of such swap for clearing,

(such processes, together, the “CAD CDOR Transition”). Eligible Affected CAD CDOR Swaps will be subject to conversion following close of business on Friday, May 17, 2024 (the “Primary Conversion Date”).⁵ CAD CDOR IRS submitted for clearing after close of business on the Primary Conversion Date but before close of business on July 2, 2024, shall be subject to conversion following close of business on July 2, 2024 (the “Secondary Conversion Date”).

The conversion processes that form the CAD CDOR Transition have been determined by CME based on extensive discussions with market participants and are designed to ensure alignment with wider industry initiatives for transition of cleared CAD CDOR IRS products.

This Clearing Advisory sets out the terms of the CAD CDOR Transition and shall be binding on Clearing Members and position holders of CME cleared IRS Contracts in Affected CAD CDOR Swaps from close of business on May 17, 2024.

⁴ In January 2021, CME implemented certain changes to the CME Rulebook to incorporate “fallback” provisions into CME cleared IRS to provide for contractual fallback to a relevant alternative spread and term adjusted RFR on the permanent discontinuation or “non-representativeness” of certain key IBORs, including GBP, CHF and JPY LIBORs. See <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2021/01/Chadv21-039.pdf>. In October 2021, concurrently with the implementation by ISDA of the 2021 ISDA Definitions, by way of amendment to the CME Rules and as set out in Clearing Advisory 21-335, CME revoked Clearing Advisory 21-039 and confirmed the incorporation into the CME Rules of the contractual fallback triggers and fallback provisions contained within the 2021 ISDA Definitions in CME Rule 90102.H (“Application of Permanent Cessation Fallbacks”), replacing those substantially equivalent provisions contained in the ISDA IBOR Fallbacks Supplement and subsequent additional supplements by ISDA.

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

Summary of Conversion Process

Subject to regulatory review, CME will transition CME cleared CAD CDOR Swaps by converting each Affected CAD CDOR Swap on the relevant Conversion Date determined by CME and specified in the table below by category of cleared contract (and thereafter on a daily basis for a limited category of contracts), utilizing in each case a mandatory conversion process, as summarized below:

Date	Conversion Date	CME cleared swaps subject to Conversion on date	Output of Conversion
May 17, 2024	Primary Conversion Date	<p>CAD CDOR IRS that contain fixing dates beyond June 28, 2024*.</p> <p>*Any CAD CDOR IRS that is in its final floating period where the last fixing is before COB June 28, 2024 but not settled, will be left to mature and will not undergo conversion.</p>	<p>For Seasoned Swaps:</p> <ul style="list-style-type: none"> Short-dated CAD CDOR Swap accounting for all remaining unsettled CAD CDOR fixings published prior to the Index Cessation Effective Date in respect of the original CAD CDOR Swap; and Forward Starting CORRA OIS with start date of the maturity date of Short-Dated CAD CDOR Swap Fixed cash flows and compounded cash flows on the replacement swaps may not match the original CDOR Swap in some cases (see examples) <p>For Compounding Swaps, CME will take into account the CDOR fixings of seasoned compounding swaps:</p> <ul style="list-style-type: none"> Short-dated CAD CDOR Swap to settle the remaining CDOR fixings to be published prior to the Index Cessation Effective Date and corresponding fixed accruals in respect of the original CAD CDOR Swap; and Forward Starting CORRA OIS with start date of the next floating coupon period and the daily compounded rate will be applied to all future floating periods Fixed and float cash flow dates on the Short Dated CAD CDOR Swap may not match the original CDOR Swap. Initial stubs may be included on the CORRA OIS to settle CDOR compounding periods in the period following the Index Cessation Effective Date <p>For Forward Starting Swaps with an effective date after the Index Cessation Effective Date:</p> <p>Forward Starting CORRA OIS with effective/maturity dates and fixed leg economic terms (excluding payment offset) of original CAD CDOR Swap</p> <ul style="list-style-type: none"> Single compensation fee is included and paid the following Toronto business day 1-day payment offset is added to both legs of the CORRA OIS, consistent with market standard OIS conventions
July 2, 2024	Secondary Conversion Date	CAD CDOR IRS that contain fixing dates beyond June 28, 2024 and that were submitted for clearing after COB on the Primary Conversion Date and before COB on the Secondary Conversion Date	<p>For Seasoned Swaps:</p> <ul style="list-style-type: none"> As for Primary Conversion <p>For Compounding Swaps:</p> <ul style="list-style-type: none"> As for Primary Conversion <p>For Forward Starting Swaps with an effective date after the Index Cessation Effective Date:</p> <ul style="list-style-type: none"> As for Primary Conversion
Daily basis after Secondary Conversion Date	Ongoing Conversion on the date of acceptance for clearing by CME	CAD CDOR IRS that are spot or forward starting with a start date after COB on the Secondary Conversion Date, in order to support clearing and conversion of swaps that result from exercise of bilateral swaptions	<p>Forward Starting CORRA OIS with effective/maturity dates and fixed leg economic terms (excluding payment offset) of original CAD CDOR Swap</p> <ul style="list-style-type: none"> Single compensation fee is included and paid the following Toronto business day 1-day payment offset is added to both legs of the CORRA OIS, consistent with market standard OIS conventions

Conversion Processes for Affected CAD CDOR Swaps on the relevant Conversion Date

CME has published its detailed methodology, including worked examples, for the relevant conversion processes (each a “Conversion”), which is provided as Exhibit 3 to CME submission [24-195] and is available on the CME website.⁶ The relevant methodology for the conversion of each original CAD CDOR IRS is summarized below:

- each resulting CME cleared CORRA OIS arising from the Conversion process (each, a “Forward Starting CORRA OIS”) will account for the ISDA Spread Adjustment on the floating leg of the CORRA OIS, retaining the key economic terms of the original trade, subject to certain adjustments described below and determined by CME according to its published methodology;
- each resulting CME cleared short-dated CAD CDOR Swap arising from the Conversion process (each, a “Short-Dated CAD CDOR Swap”) is designed to account for any known CAD CDOR rate coupons that will be unpaid on the Index Cessation Effective Date, restating these accrual periods as Short-Dated CAD CDOR Swaps which will have economic terms as determined by CME according to its published methodology, the purpose of which is to reduce the differences in cashflow amounts for the projected cashflows;
- in order to neutralize the value transfer from the Conversion of the economic position of each original CAD CDOR Swap into each relevant Forward Starting CORRA OIS, CME will calculate a cash adjustment amount that will be based on the difference between the net present value (“NPV”) of the original CAD CDOR Swap and the combined NPV of the Forward Starting CORRA OIS and any Short-Dated CAD CDOR Swap on the relevant Conversion Date. The Cash Adjustment for each Forward Starting CORRA OIS will be equal and opposite to the change in NPV calculated by CME, and therefore may be a positive or negative amount depending on the position (the “Cash Adjustment”).⁷ The Cash Adjustment amount will be applied by CME in the form of upfront “fees” on each resulting cleared Forward Starting CORRA OIS on the relevant Conversion Date;
- cash flows relating to the Cash Adjustment will be applied in the next end of day clearing cycle following the relevant Conversion Date;
- the Cash Adjustment will ensure that the NPV change for position holders impacted by the Conversion will be neutralized;
- in each case, any Forward Starting CORRA OIS will be cleared as a CME cleared CORRA OIS (referencing the CAD-CORRA-OIS Compound Floating Rate Option) and any Short-Dated CAD CDOR Swap will be cleared as a CAD CDOR Swap.

Primary Conversion Date – Conversion Processes

A: CAD CDOR IRS excluded from Primary Conversion

⁶ See <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-cad-cdor-cleared-swaps.pdf>

⁷ Where the holder of a Forward Starting CORRA OIS had benefited from a change in NPV, an upfront fee equal and opposite to that amount of change in NPV would be applied to that Forward Starting CORRA OIS and such amount would be due from the position holder at the next clearing cycle. Where the holder of a Forward Starting CORRA OIS experiences a negative change in NPV, an upfront fee equal and opposite to that amount of change in NPV would be applied to the Forward Starting CORRA OIS and such amount would be due to the position holder at the next clearing cycle. The net cash flow position for all participants is neutral. The net cash flow position for the Clearing House is neutral.

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

- (i) CAD CDOR Swaps that mature on or before the Primary Conversion Date;
- (ii) CAD CDOR IRS where the last CAD CDOR fixing date is on or before June 28, 2024, but which do not settle prior to June 28, 2024.

B: Conversion of Seasoned and Compounding CAD CDOR Swaps on the Primary Conversion Date

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

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

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

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

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

- a corresponding standardized Forward Starting CORRA OIS, retaining the key economic terms of the original CAD CDOR Swap trade,

in each case subject to certain adjustments determined by CME described above (in Adjustment Methodology), including the Cash Adjustment which shall be applied to each Forward Starting CORRA OIS, and applied according to its published methodology set out in Exhibit 3 to CME Submission [24-195].

D: Characteristics of each resulting Forward Starting CORRA OIS:

Each Forward Starting CORRA OIS resulting from any Conversion process will:

- maintain the effective/maturity dates and fixed leg economic terms (excluding payment offset) of the original CAD CDOR Swap;
- include a payment offset (1D) added to both legs of the swap, consistent with market standard OIS conventions;
- include a single compensating upfront fee (the Cash Adjustment) to be paid the following Toronto business day;
- Fixed leg day counts will be defaulted to the market standard convention “Act/365.fixed”;
- Additional Payment Calendars will be defaulted to the market standard convention of Toronto (CATO). No additional calendars are carried over.

E: Conversion approach to Compounding Swaps

For compounding CAD CDOR Swaps, CME will respect the remaining CAD CDOR fixings of any seasoned compounding swaps:

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

E: Conversion approach to Swap Stub Periods

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

- Short-dated CDOR Swaps: CME will carry over the stub type, period start, and period end dates. Stub periods will reference the 3M CDOR index.
- CORRA OIS: Forward starting stub periods will maintain the period start and end dates with a daily compounded overnight rate. The compounding method is the same as a standard period. Fallback spreads apply to stub periods.

Secondary Conversion Date – Conversion Processes

A: CAD CDOR IRS excluded from Secondary Conversion

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

- (i) CAD CDOR Swaps that mature on or before the Secondary Conversion Date;
- (ii) CAD CDOR IRS where the last CAD CDOR fixing date is on or before June 28, 2024, but which do not settle prior to June 28, 2024; and
- (iii) Short-Dated CAD CDOR Swaps arising from the Primary Conversion.

B: Conversion of CAD CDOR Swaps submitted prior to the Secondary Conversion Date

With respect to any CAD CDOR Swap submitted for clearing after COB on the Primary Conversion Date but before COB on the Secondary Conversion Date (including Swaps that result from the exercise of a bilateral (uncleared) Swaption contract exercise), at close of business on the Secondary Conversion Date

CME will convert such CAD CDOR Swaps utilizing the applicable process applied by CME to relevant CAD CDOR Swaps on the Primary Conversion Date, as described above.

Limitation of Clearing Support for CAD CDOR Swaps after Secondary Conversion Date and Daily Conversion Process

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

Until further notice by CME to market participants, in order to continue to support clearing of any spot or forward starting CAD CDOR Swap that results from the exercise of a bilateral (uncleared) Swaption contract exercise after the Secondary Conversion Date, CME will accept for clearing any spot or forward settled CAD CDOR Swap that is submitted to CME for clearing following COB on the Secondary Conversion Date where the start date of such swap is on or after such date. At COB on the date of acceptance for clearing, CME will convert such CAD CDOR Swap contract utilizing the process applied by CME to forward starting CAD CDOR Swaps on the Primary Conversion Date, as described above.⁸

The CAD CDOR Conversion is a mandatory process and the terms set out in this Clearing Advisory will apply to all cleared trades in CAD CDOR Swaps from May 17, 2024, subject to regulatory review.

Amendment to Primary Conversion Date in Limited Circumstances

CME will reserve the right to amend the proposed Primary Conversion Date in its sole and absolute discretion prior to the Primary Conversion in limited circumstances, for example, where implementation of the conversion process on the previously communicated date could, in the opinion of the Clearing House, result in an unacceptable level of operational or market disruption or where financial stability issues could threaten the orderly transition. In such circumstances, CME would communicate the amended Primary Conversion Date to market participants as soon as practicable upon making such determination.⁹

Cash Adjustment Amount Calculation and Processing

Calculation of Cash Adjustment Amount

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

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

⁸ CME will convert the relevant CAD CDOR Swap into a CORRA OIS. There is no resulting Short-Dated CAD CDOR Swap.

⁹ CME Clearing has identified a provisional contingency fallback date of June 7, 2024, in the event that the May 17, 2024, date for the Primary Conversion is determined to be unsuitable as the date of Primary Conversion.

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

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

Payment of Cash Adjustment Amount

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

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

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

Cash Adjustment Examples

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

As of COB on Friday, May 17, 2024

	Value Date	Cleared Trade ID	Floating Rate Option	Status	NPV	NPV Adj.*	Previous NPV Adj.	Variation Margin	Upfront Payment	Fee Type	Payment Date	Net Cash Flow
Original CAD CDOR Swap	05/17/2024	144223	CAD-CDOR	TERMINATED	0	0	18,000.00	-18,000.00	-	-	-	-18,000.00
Short-Dated CAD CDOR Swap	05/17/2024	126466	CAD-CDOR	CLEARED	5,000.00	5,000.00	0	5,000.00	-	-	-	5,000
Forward Starting CORRA OIS	05/17/2024	126467	CAD-CORRA-OIS Compound	CLEARED	14,000.00	13,000.00	0	13,000.00	1,000.00	UPFRONT_FEE	05/21/2024	14,000.00

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

Cash Adjustment Calculation Example*

Original CAD CDOR Swap Valuation NPV Adj. as at COB May 17, 2024 = 19,000.00 (shown as zero above since swap has terminated in conversion, from an operational perspective)

Forward Starting CORRA OIS Valuation + Short-Dated CAD CDOR Swap Valuation (NPV Adj. as at 05/17/2024) = 5,000.00 + 13,000.00 = 18,000.00

PnL Change = (13,000.00 + 5,000.00) – 19,000.00 = - 1,000.00

Cash Adjustment = Change in Adjusted NPV = 1,000.00

* Note: In this example, the Cash Adjustment offsets the gain of 1,000.00 between the Original CAD CDOR Swap and the combined valuation of the Forward Starting CORRA OIS and the Short-Dated CAD CDOR Swap

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

Value Date	Cleared Trade ID	Floating Rate Index	Status	NPV	NPV Adj.	Previous NPV Adj.	Variation Margin	Upfront Payment	Fee Type	Payment Date	Net Cash Flow
05/21/2024	126466	CAD CDOR	CLEARED	5,500.00	5,500.00	5,000.00	500.00	-	-	-	500.00
05/21/2024	126467	CAD-CDOR-OIS Compound	CLEARED	13,500.00	13,500.00	13,000.00	500.00	-	-	-	500.00

Calculation Breakdown (05/21/2024)

Original CAD CDOR Swap VM = NPV Adj. – Previous NPV Adj.

= 0 - 18,000.00 = -18,000.00

PnL Change = NPV Adj. (Forward Starting CORRA OIS) + NPV Adj. (Short Dated CAD CDOR swap) – NPV Adj. Original CAD CDOR Swap

= (13,000.00 + 5,000.00) – 19,000.00 = - 1,000.00

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

= 19,000.00 – (5,000.00 + 13,000.00) = 1,000.00

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

= 14,000.00 – (1,000.00) = 13,000.00

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

Clearing of swaps arising from Conversion processes

Each resulting swap will be cleared by CME in accordance with the CME Rules.

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

Fees for CAD CDOR Transition Conversion Process

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

Fee Type	Trade Types	Products	Source, Terminate Reason (TR), Create Reason (CR)	HOUSE FM / NONFM	CUSTOMER Standard Client Schedule
CORRA Conversion Fee	All	All	CR = Index Conversion	\$10 per line item*	\$50 per line item*

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

For bilateral swaption exercises that result in a Forward Starting CORRA OIS under the legacy index reference rate, CME will conduct a daily conversion of such trades to CORRA OIS and will apply a charge of \$10 (for House positions) and \$50 (for Customer positions) per converted trade to the position and to which new trade clearing fees apply.

¹⁰ The Conversion Fee shall not apply to: Short-Dated CAD CDOR Swaps resulting from the Conversion process or to the termination of CAD CDOR Swaps. For bilateral swaption exercises that result in a cleared swap under the legacy IBOR index, a Conversion Fee corresponding to the appropriate account type per converted trade will be applied to the position in addition to the new trade clearing fees.

CME will apply a Conversion Fee of \$10 for each House Forward Starting CORRA OIS and a Conversion Fee of \$50 for each Customer Forward Starting CORRA OIS that is established as a result of the relevant Conversion process in each case.

Rationale for CAD CDOR Transition Process

The CCP-led conversion of cleared CAD CDOR Swaps by the amendment of cleared trades into corresponding standardized CORRA OIS is seen by market participants as a critical element in the overall process of ensuring an orderly and efficient transition from CAD CDOR rates in derivatives markets, with a similar rationale and process to the relevant IBOR conversions performed to date by CME and other CCPs.

In CME's engagement with market participants in relation to the proposals for the CAD CDOR transition in 2023 / early 2024, market participants expressed a clear preference for CME to implement a modified approach to fallbacks similar to that adopted for the USD LIBOR OTC IRS transition in June 2023 (and in certain other previous CCP-led IBOR transitions) rather than to fully operationalize the relevant ISDA-derived fallbacks in CME Rule 90102.H (Application of Permanent Cessation Fallbacks). On this basis, CME proposes to disapply Rule 90102.H in relation to relevant CAD CDOR IRS and instead to utilize the ISDA Spread Adjustment and ISDA Fallback Pricing Methodology to impose a mandatory conversion of cleared CAD CDOR swaps into corresponding standardized CAD CORRA OIS (and, where applicable, short-dated CDOR swap to account for remaining CDOR fixings), accounting for the relevant ISDA Spread Adjustment on the floating leg of the replacement OIS, a short period ahead of the "Index Cessation Effective Date".

The industry consensus communicated to CME by market participants indicates that the significant majority of cleared market participants prefer such an "early" and CCP-led conversion of cleared CAD CDOR Swaps into standardized CORRA OIS swaps as it has certain advantages for market participants over full reliance on the ISDA-derived contractual fallbacks. In particular, market participants noted that application of the ISDA contractual fallbacks without modification would give rise to resulting positions that would not be on the same terms as, and therefore not directly fungible with, standardized cleared CORRA OIS. This could create difficulties for participants wishing to unwind non-standardized resulting CORRA swap contracts; in order to do so, firms would need to execute and book additional non-standard swaps in an uncertain liquidity environment. During CME's industry engagement processes, market participants have informed CME that its proposed conversion approach benefits the marketplace by:

- creating a single transparent liquidity pool for trading CORRA OIS;
- providing participants certainty that "legacy" and "new" contracts would be fungible with one another upon transition to the CORRA fallback; and
- supporting market standard CORRA OIS that are themselves widely supported by market participants and market infrastructure, thereby removing the need to operationally support the "Observation Period Shift" (within the meaning of the ISDA 2021 Definitions) concept that operates under the ISDA IBOR Fallbacks.¹¹

¹¹ The methodology for conversion utilized by CME will account for the payment lag arising from conversion into a standardized CORRA OIS.

Market participants, industry groups and regulators recognize these benefits of a CCP-led conversion and CME's proposed approach has been well publicized and understood. Market participants support the relevant conversion dates selected by CME in order to ease potential operational congestion for cash and derivatives market participants and CCPs due to the scheduled cessation of CAD CDOR on June 28, 2024.

CME has consulted with a diverse cross-section of market participants to obtain feedback on the operational processes for the CAD CDOR Transition. CME undertook a public consultation on the proposals for the CAD CDOR Transition in December 2023 and also engaged directly with market participants and Clearing Member firms.¹² In January 2024 CME shared the final details of the proposals to effect the "CCP-led" transition away from CAD CDOR ahead of the Index Cessation Effective Date.¹³ CME has provided market participants with the opportunity to participate in operational testing and has conducted dress rehearsals on the following dates to encourage operational readiness:¹⁴

- March 8, 2024 – Primary Conversion dress rehearsal
- April 5, 2024 – Secondary Conversion dress rehearsal¹⁵

The initial publication by CME Clearing of "indicative analysis reports" to illustrate example Cash Adjustment amounts for test portfolios on any conversion day commenced on February 26, 2024 and will be available for both clearing members and clients until July 2, 2024.

Legal and Operational Characterization

In legal and contractual terms, each Conversion process will amend the terms of cleared trades in CME cleared CAD CDOR Swaps, converting the terms of each cleared trade to a standardized CME cleared CORRA interest rate swap and, where applicable, a Short-Dated CAD CDOR Swap. From an operational perspective, each relevant Conversion will be processed by CME as a "termination" of each relevant CAD CDOR Swap and the establishment of a "new" corresponding cleared trade in CORRA OIS within the clearing system, the Forward Starting CORRA OIS or corresponding CORRA swap and, where applicable, a new Short-Dated CAD CDOR Swap, as described in more detail below.

Operational Information

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

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

As part of the relevant Conversion process, a subset of Trade IDs from each original CAD CDOR Swap will be carried over to the relevant resulting CORRA OIS and Short-Dated CAD CDOR Swap. The CME Trade ID and USI/UTI are not carried over but, in order to identify the link between each original CAD CDOR Swap

¹² See: <https://www.cmegroup.com/articles/2023/proposal-for-cme-group-cleared-cad-cdor-interest-rate-swaps.html>

¹³ See: <https://www.cmegroup.com/content/dam/cmegroup/trading/interest-rates/files/cme-conversion-for-cad-cdor-cleared-swaps.pdf>

¹⁴ See: <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2024/03/Chadv24-072.pdf>

¹⁵ See: <https://www.cmegroup.com/content/dam/cmegroup/notices/clearing/2024/04/Chadv24-095.pdf>

and the relevant resulting CORRA OIS and any Short-Dated CAD CDOR Swap, CME will add a replacement Trade ID and Original Trade ID respectively in the History section of the clearing confirmation messages.

Reporting to SDR

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

Trade Messaging and Reports

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

- End of Day Trade Register report made available by the Clearing House only to IRS clearing members and clients via an sFTP site;
- CME OTC IRS Bookkeeping document, made available to IRS Clearing Members and their customers on request;
- FpML Confirmations for Affected Contracts and Conversion Swaps; and
- CDOR to CORRA Cash Adjustment Report made available by the Clearing House only to IRS Clearing Members and clients via an sFTP site, illustrating the NPV for each original CAD CDOR Swap and the revised NPV for each Conversion Swap and the Cash Adjustment at the trade level for each position account. This report will be available as an "Indicative Analysis Report" (IBORCONV report) in the CME Production Environment will be published until July 2, 2024. The actual Cash Adjustment amounts will be indicated in the IRS Trade Register at COB on the relevant Conversion Date.

Implementation of CAD CDOR Conversion

This Advisory Notice sets out the binding rules and operational processes under which CME Clearing will implement each element of the CAD CDOR Conversion, including the modification and operational close out of CAD CDOR IRS Contracts and the establishment of replacement corresponding CAD CORRA standardized OIS interest rate swaps and, where applicable, Short-Dated CAD CDOR Swaps, which will be implemented by CME with respect to open cleared trades in affected CME cleared products at the relevant Conversion Date. The CAD CDOR Conversion is a mandatory process and the terms set out below in this Clearing Advisory will apply to all cleared trades in CAD CDOR Swaps from May 17, 2024, [subject to regulatory review].

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

CME Cleared Contracts Subject to the CAD CDOR Conversion and this Advisory Notice

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

- (i) reference CAD CDOR as the interest rate swap rate option (the “Floating Rate Option”) ¹⁶;
- (ii) are open at close of business (“COB”) on the relevant Conversion Date; and
- (iii) do not mature on the relevant Conversion Date or are not in the final floating rate period where the last CAD CDOR fixing date is on or before June 28, 2024,

(the “Affected Contracts”).¹⁷

Terms and Operation of Conversion Processes

Primary Conversion

1. The “Primary Conversion Date” shall be May 17, 2024 except where the Clearing House determines in its sole and absolute discretion prior to the Primary Conversion process that implementation of the conversion process on May 17, 2024, or such other previously communicated date, could:
 - (a) result in an unacceptable level of operational or market disruption, or
 - (b) threaten the orderly transition due to issues of financial stability,in which case the Clearing House shall determine an alternative date as the “Primary Conversion Date” in its sole and absolute discretion prior to the Primary Conversion and shall communicate the revised Primary Conversion Date to market participants as soon as practicable upon making such determination.
2. Except with respect to cleared CAD CDOR IRS to which paragraph 4 below applies, at or shortly after COB on the Primary Conversion Date, CME Clearing will amend the terms of each eligible cleared trade in CAD CDOR IRS that is open at COB on the Primary Conversion Date in the account of the relevant position holder (each such cleared trade, a “Pre-Conversion Swap”) such that the cleared trade shall be converted into:
 - (a) a corresponding CME cleared Overnight Index Swap (“OIS”) referencing the Canadian Overnight Repo Rate Average (“CORRA”) interest rate benchmark, with start date matching the start of the floating period following July 2, 2024 (each, a “CORRA OIS Conversion Swap”); and
 - (b) a short-dated CAD CDOR replacement swap accounting for CAD CDOR floating period coupons on the Pre-Conversion Swap, with start and end dates matching the remaining CAD CDOR floating periods with unsettled coupons (each, a “Short-Dated CAD CDOR Swap”),

¹⁶ CAD CDOR Swaps comprise any CME cleared IRS referencing “CAD-BA-CDOR” or “CAD-CDOR” as the Floating Rate Option.

¹⁷ Note that forward rate agreements referencing CAD CDOR (“FRAs”) are excluded from the scope of the CAD CDOR Conversion. CME has ceased clearing CAD CDOR FRAs with effective dates after June 28, 2024, removing FRAs from the conversion scope. CAD CDOR FRAs with effective dates on or prior to this date remain eligible for clearing. CAD CDOR IRS where the last CAD CDOR fixing date is before June 28, 2024 but which do not settle before such date are also excluded from the Conversion processes.

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

Secondary Conversion

3. With respect to each cleared CAD CDOR IRS that is accepted for clearing by CME after COB on the Primary Conversion Date and prior to COB on July 2, 2024 (the "Secondary Conversion Date"), at or shortly after COB on the Secondary Conversion Date, CME Clearing will amend the terms of each such cleared trade in the account of the relevant position holder (each such cleared trade, a "Pre-Conversion Swap") such that the cleared trade shall be converted into:

- (a) a corresponding CME cleared OIS referencing the CORRA interest rate benchmark, with start date matching the start of the floating period following July 2, 2024 (each, a "CORRA OIS Conversion Swap"); and
- (b) a short-dated CAD CDOR replacement swap accounting for CAD CDOR floating period coupons on the Pre-Conversion Swap, with start and end dates matching the remaining CAD CDOR floating periods with unsettled coupons (each, a "Short-Dated CAD CDOR Swap"),

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

Daily Conversions after Secondary Conversion Date

4. With respect to each cleared CAD CDOR IRS that:

- (a) has a start date on or after COB on the Secondary Conversion Date; and
- (b) is accepted for clearing by CME after COB on or after the Secondary Conversion Date,

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

Conversion Processing

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

- (a) the Primary Conversion Date;
- (b) the Secondary Conversion Date; or

(c) each Business Day following the Secondary Conversion Date on which CME accepts for clearing CAD CDOR IRS that satisfy the requirements in paragraph 4 above,

(each a "Conversion Date"),

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

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

(the "Conversion Calculation").

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

Conversion Process Fees

10. CME will apply to each resulting CORRA OIS Conversion Swap (or such other Conversion Swap, as determined by CME) a fixed conversion surcharge of:
 - (a) \$10 for each CORRA OIS Conversion Swap that is established as a result of the Conversion process in respect of each relevant Pre-Conversion Swap in Clearing Member House accounts; and
 - (b) \$50 for each CORRA OIS Conversion Swap that is established as a result of the Conversion process in respect of each relevant Pre-Conversion Swap for Customer positions, (each, the "Conversion Fee").

Miscellaneous Provisions

11. Except as expressly stated in this paragraph in relation to IRS Contracts falling within paragraph 4 ("Residual Swaps"), CME will not apply the Permanent Cessation Fallbacks in CME Rule 90102.H (Application of Permanent Cessation Fallbacks) in respect of any Affected Contract or position resulting from the CAD CDOR Conversion process. On acceptance for clearing of a Residual Swap on or after COB on the Secondary Conversion Date, for the purposes of clearing such Residual Swap prior to conversion, CME will amend the terms of the Residual Swap such that any reference to CAD CDOR shall be deemed to be a reference to the relevant nominated successor Fallback Rate published by Bloomberg Index Services Limited for such Residual Swap prior to conversion at COB in accordance with paragraph 4.
12. CME shall make such further amendments to the terms of Affected Contracts as it deems necessary in its sole and absolute discretion to implement the terms of this Advisory Notice.
13. The terms of this Advisory Notice and each relevant Conversion process are binding on Clearing Members and position holders in all Affected Contracts, effective May 17, 2024. To the extent that there is any conflict between the Rules and the terms of this Advisory Notice with respect to any Conversion process, this Advisory Notice shall prevail. For the purposes of this Advisory Notice, Rule 90103.A (Contract Modifications; CME Rules) shall not apply to the extent it purports to restrict modification to the terms of IRS Contracts that are the subject of this Advisory Notice.

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

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

From COB on the Secondary Conversion Date, with the exception of Residual Swaps that meet the relevant requirements in paragraph 4 above, after COB on the Secondary Conversion Date, CME Clearing will cease to accept for clearing trades in the Affected Contracts.

From COB on the Secondary Conversion Date, CME Clearing will continue to accept Residual Swaps that meet the requirements in paragraph 4 above. Such trades will be subject to the relevant Conversion process described above in paragraphs 4 to 9.

The list of IRS Rate Options in CME Rule 90102.E.1. (Interest Rate Swaps Rate Options) in Chapter 901 ("Interest Rate Swaps Contract Terms") of the CME Rulebook will be updated accordingly from close of business on May 17, 2024, as detailed in CME Submission [24-195].

Additional details regarding the Conversion may be viewed in ***CME Submission No. [24-195]***.

Inquiries regarding the aforementioned may be directed to:

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