CME Group

December 3, 2019

CME Group SOFR Discounting & Price Alignment
Transition Plan for Cleared USD Interest Rate Swap Products

CME Group believes that migrating the discounting and price alignment environment for cleared USD interest rate swap products (IRS) from the daily effective federal funds rate (EFFR) to the secured overnight financing rate (SOFR), in accordance with the ARRC Paced Transition Plan, will foster liquidity across the SOFR term structure. By conducting a single-day transition, we intend to efficiently transition discounting and price alignment while mitigating any potential risks and ensuing valuation changes.

After extensive consultation with market participants and the ARRC Paced Transition Working Group, pending regulatory approval, CME Group intends to proceed with the following aspects of its Discounting & Price Alignment Transition Plan for USD IRS products as outlined below: scope, timing, cash adjustment, and discounting risk exchange.

Scope: All existing Cleared US Dollar IRS products at CME, comprising:

Fixed/Float IRS	***Overnight Index Swaps***	***Forward Rate Agreements***
Zero Coupon Swaps	***Basis Swaps***	***Swaptions***

Market practitioners should continue to evaluate future dates for transitioning additional IRS currencies for which valuation involves a USD funding component, taking into consideration potential impacts on adjacent FX forward and cross-currency swap markets.

Timing: We are targeting a transition date of October 16, 2020, with the dual aims of accelerating the timeline outlined in the ARRC Paced Transition Plan while providing adequate notice to market participants to facilitate an orderly transition on a date supported by the significant majority of firms.

October 2020						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Process: After close of business (Central Time) on October 16, 2020, CME Clearing will conduct a standard end-of-day valuation cycle, determining settlement variation (variation margin/VM) and cash payments on open positions in USD IRS products as calculated in the current EFFR-based discounting and price alignment environment (discounting/PA). Upon completion of this initial cycle, CME Clearing will then conduct a special valuation cycle, determining settlement variation and cash payments on those positions as calculated with SOFR-based discounting/PA.

Cash Adjustment: To neutralize value transfer attributable to the change in the discounting basis, the special valuation cycle will include a cash adjustment that is equal and opposite to the resultant change in the net present value (NPV) of each cleared IRS product.

Cash Adjustment Example

	Net Present Value				
Trade	**Standard Cycle EFFR Discounted**	**Special Cycle 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**

Discounting Risk Exchange: The transition would effectively move the discounting risk for all participants from EFFR to SOFR at closing curve levels on October 16, 2020, as illustrated by the hypothetical examples below.

16-Oct-20	Starting Risk (DV01)		Conversion Risk Change		Post Conversion Risk	
	EFFR	SOFR	EFFR	SOFR	EFFR	SOFR
Firm 1	$218,076	$0	($218,076)	$218,076	$0	$218,076
Firm 2	$240,663	$0	($240,663)	$240,663	$0	$240,663
Firm 3	($86,923)	$0	$86,923	($86,923)	$0	($86,923)
Firm 4	$110,181	$0	($110,181)	$110,181	$0	$110,181
Firm 5	($481,997)	$0	$481,997	($481,997)	$0	($481,997)

To mitigate both the potential re-hedging costs associated with this transition and the sensitivity of valuations to closing curve marks on October 16, 2020, CME Clearing will facilitate a mandatory process to book a series of EFFR/SOFR basis swaps to participants' accounts. Such basis swaps will restore participants' positions to their original risk profiles and will be booked at closing curve levels ($0 NPV) as of October 16, 2020. The hypothetical examples below illustrate the economic impact of the proposed process. (Note that such risk exposures would be bucketed and exchanged at key benchmark tenors in the actual transition process.)

16-Oct-20	Risk Profile Before Risk Exchange		Risk Exchange via Basis Swaps		Risk Profile After Risk Exchange	
	EFFR	SOFR	EFFR	SOFR	EFFR	SOFR
Firm 1	$0	$218,076	$218,076	($218,076)	$218,076	$0
Firm 2	$0	$240,663	$240,663	($240,663)	$240,663	$0
Firm 3	$0	($86,923)	($86,923)	$86,923	($86,923)	$0
Firm 4	$0	$110,181	$110,181	($110,181)	$110,181	$0
Firm 5	$0	($481,997)	($481,997)	$481,997	($481,997)	$0

To facilitate smooth operational processing, market participants would be able to choose to have such basis swaps booked as either float-versus-float basis swaps or as pairs of fixed-versus-float swaps with equal and opposite fixed cash flows.

Effective October 19, 2020, and thereafter, CME Clearing will apply SOFR-basis discounting/PA to all cleared USD IRS products.

The Following Topics Are Not Finalized - For Discussion Purposes Only

Basis Swap Auction Mechanism: CME Group believes that an auction should be made available to market participants wishing to liquidate any EFFR/SOFR basis swap exposures arising from the mandatory Discounting Risk Exchange process. We intend to engage a third-party service provider (or providers) to conduct an auction to enable participating firms to offload these positions.

We believe that an appropriate auction service would first net down gross payer and receiver discounting risks across firms electing to participate, and then auction the residual risk exposures. The resulting costs of the auction would then be allocated across firms participating in the auction. Such mechanism would benefit participants by helping them to efficiently liquidate basis swap positions to minimize market impacts, and by providing a single fill price for participating firms.

We believe it will be important for the provider(s) conducting this service to incorporate pre-defined risk and profit/loss controls into the process to mitigate the adverse (and potentially disruptive) effects of an auction whose risk may exceed the market's appetite.

We continue to consult with market participants on this proposal and will provide further details in due course.

Treatment of Uncleared Legacy Swaption Exercises: We recognize that the SOFR Discounting & Price Alignment Transition Plan for cleared USD IRS products may create ambiguities with respect to the exercise of legacy uncleared Swaption contracts, notably in connection with those contracts that (a) were executed on the premise that any IRS resulting from exercise would be cleared subject to EFFR discounting/PA and (b) expire after October 16, 2020. We encourage the industry to resolve these ambiguities by agreeing to a set of best practices (e.g. ISDA guideline endorsed by the ARRC), including:

1. Identification of a date on which the industry will begin pricing Swaptions such that any IRS created in exercise/assignment will be presumed to be cleared with SOFR discounting/PA. We recommend that this date should be no later than the discounting/PA transition date, October 16, 2020, and provide for the broadest possible preparation and support for this change, while minimizing potential disruptions to liquidity or market conditions.

2. Determination of whether a cash and/or risk adjustment should be applied to legacy Swaption contracts entered into prior to the date determined in Item 1 and exercised after the discounting/PA transition date.

3. Creation of a standard for calculating and processing the potential corresponding adjustments, if such adjustments are deemed appropriate for the population of legacy Swaption contracts identified in Item 2.

Operational Readiness: As CME Group moves forward with the scope, timing, cash adjustment, and discounting risk exchange aspects of the discounting transition, we intend to begin internal and external validation of operational and reporting requirements through Q1-2020 with operational build out and testing proceeding through Q2-2020. We will provide regular updates on this effort to our participants through the OTC clearing initiatives forum.

We fully support efforts to promote liquidity in the SOFR benchmark, and we look forward to facilitating wider adoption of SOFR in continued partnership with industry participants.