

SOFR Discounting & Price Alignment Transition Proposal for Cleared Swaps

After extensive consultation with our client base and the ARRC Paced Transition Working Group, CME Group has developed a high-level proposal for transitioning price alignment and discounting for USD OTC cleared swaps from the daily effective federal funds rate (EFFR) to SOFR. Our goal in publishing this proposal is to facilitate discussion on how this transition would be implemented. CME Group looks forward to working with the industry to continue building consensus on the best path forward for achieving single-day discounting conversion for existing swaps.

Scope: Cleared US dollar interest rate swap products at the respective clearinghouse. At CME, this includes:

<i>Fixed/Float IRS</i>	<i>Overnight Index Swaps</i>	<i>Forward Rate Agreements</i>
<i>Zero Coupon Swaps</i>	<i>Basis Swaps</i>	<i>Swaptions</i>

Timing: Given the goal of accelerating the timelines outlined in the ARRC Paced Transition Plan, and in consideration of other events scheduled for H2-2020 (e.g., Phase V implementation of Uncleared Margin Rules, U.S. elections), we would propose targeting a transition date of July 17, 2020.

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

Process: After close of business on July 17, 2020, CME would conduct a standard end-of-day valuation cycle, determining variation margin and cash payments as calculated with EFFR discounting and price alignment. Upon completion of this initial cycle, CME would then conduct a special cycle in which positions would be valued with SOFR discounting.

Cash Compensation: To neutralize the value transfer attributed to the change in the discounting rate, CME would make a cash adjustment that is equal and opposite to the change in each cleared swap's net present value (NPV) as part of the special cycle.

Cash Compensation Example

Trade	Net Present Value		NPV Diff	Offsetting Adjustment	Net Cash Flow
	Standard Cycle EFFR Discounted	Special Cycle SOFR Discounted			
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: By changing the discounting curve, CME would effectively move the discounting risk of all participants from EFFR to SOFR at closing curve levels on July 17, 2020, as illustrated by the hypothetical examples below.

17-Jul-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 hedging costs associated with this transition and sensitivity to closing curve marks on July 17, 2020, CME would book a series of EFFR/SOFR basis swaps to participants' accounts. These swaps would restore participants back to their original risk profiles and be booked at the July 17, 2020 closing curve levels (\$0 NPV). The examples below illustrate the proposed process. (Please note that risk exposures would be bucketed and exchanged at key benchmark tenors during the actual transition.)

17-Jul-20	Pre-Risk Exchange Risk		Basis Swap Risk		Post 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 of this risk exchange, participants would be able to choose to have these swaps booked as either float-versus-float basis swaps, or pairs of fixed-versus-float swaps with equal and opposite fixed cash flows.

Effective July 20, 2020, and thereafter, CME would utilize SOFR discounting and price alignment on all US dollar interest rate swap trades.

Risk Exchange Auction Mechanism: For participants who do not wish to hold EFFR/SOFR basis swaps resulting from the discounting risk exchange, CME Group intends to engage 3rd party providers to facilitate an auction and/or transfer mechanism.

Treatment of Legacy Swaption Exercises: CME is proposing to offer a service which would facilitate a standardized compensation methodology for Swaption exercises which were executed under the premise that the resulting swap would be centrally cleared in an EFFR discounting regime. This service would allow counterparties to signal for CME to calculate the difference in value between SOFR and EFFR discounting and settle a corresponding cash compensation adjustment via a new field provided by affirmation platforms. CME believes this approach provides counterparties the flexibility to either negotiate bilateral agreements before Swaption exercise or utilize CME's standardized compensation methodology.

CME Group fully supports efforts to promote liquidity in the SOFR benchmark and looks forward to facilitating wider adoption of SOFR in continued partnership with the industry.

Please direct comments or questions to sofrdiscounting@cmegroup.com.