The adjustment in discounting for cleared USD swaps is only one component of a much broader set of initiatives in the transition from USD LIBOR to SOFR, and efforts to promote liquidity across the SOFR curve. Against a more volatile market backdrop, basis risk through the LIBOR transition has become elevated as markets work through and digest the demands of new calculations. Market participants will need to have a plan in place and resources available to respond if there is a mismatch between a cash product and any related derivative that is designed to hedge risks associated with the cash product.

By targeting discounting transition in a single step, CME and LCH have coordinated a shift for cleared products in a bid to minimise any ensuing valuation and basis risk.

COMPENSATING FOR THE TRANSITION

The transition of the discounting benchmark will affect valuations, driven by gains or losses incurred during the switch, throughout portfolios containing USD-denominated contracts. It will also impact the risk profile of portfolios as EFFR discounting risk converts to SOFR discounting risk at the point of transition.

Market participants will be compensated for changes in both value and risk through a combination of cash and compensating swaps.

- For example, if the spread between EFFR and SOFR rose sharply at the point of conversion before falling back after the event, cash adjustments would compensate for excess gains and losses versus normal levels.
- Basis swaps, however, would also provide protection against physical delivery of skewed prices, offsetting any short-term losses or gains realized in the cash adjustment through changes in the valuation of the swaps themselves.
CME GROUP INC.

CME’s transition plan involves an exchange of both cash (to provide value compensation) and swaps (to provide risk compensation) for market participants. The risk compensation will be mandatory, and CME intends to engage third-party service providers to conduct an auction for market participants who want to liquidate their EFFR/SOFR basis swaps.

After close of business on October 16, CME will conduct its standard end-of-day valuation cycle to determine variation margin and cash payments using EFFR-based discounting and price alignment (PA).

Following this initial cycle, CME will then conduct a special valuation cycle, determining variation margin and cash payments calculated using SOFR-based discounting/PA.

To offset any changes in value resulting from the adjustment to SOFR, the special cycle will include a cash adjustment compensating for any change in the net present value (NPV) on each trade that arises between the two discounting regimes. For example, the difference between the NPV of all future cash flows calculated using EFFR discounting and the NPV using SOFR discounting.

All cleared USD interest rate swap products at CME will fall within scope of the transition, apart from CME SOFR index swaps which already use SOFR discounting and price alignment and therefore excluded.

CME is currently offering to provide indicative impact assessments of the discounting transition for existing cleared portfolios, based on data at a pre-selected date. This will provide a gauge of the impact on:

i. Change in NPV on a trade level and associated cash adjustments.

ii. Discounting risk sensitivities by tenor at whole portfolio and/or trade level.

iii. Resulting basis swaps from re-hedging processes required.

iv. Historical descriptive statistics of the EFFR/SOFR basis, though this has become much more volatile through the recent crisis.

CME’S SOFR TESTING AND READINESS TIMELINE

According to CME, participants are expected to have until October 2 to elect if they prefer risk compensating swaps provided as EFFR/SOFR basis swaps or pairs of fixed/float synthetic basis swaps, and if they wish to liquidate these swaps via the auction process.

After October 19, CME will apply SOFR-basis discounting and price alignment to all cleared USD interest rate swap products.

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LCH LTD.

LCH’s transition plan also involves an exchange of both cash (to provide value compensation) and swaps (to provide risk compensation). However, unlike CME, client accounts will be able to elect cash-only compensation, thereby opting out of the risk compensation. Opt-out decisions must be communicated to LCH by clearing brokers no later than September 4, 2020.

Cash payments are to be calculated on a full revaluation basis using mid prices from the auction process to build a pricing curve. The same mid prices would be used to determine the required spreads on all compensating swaps with a view to ensuring zero change in present value. LCH is aiming to maintain the benefits of both approaches while considering potential drawbacks.

The calculation of risk compensation through swaps will be conducted as follows:

i. The first step evaluates the change in discounting risk through the EFFR/SOFR transition and the level of compensation required.

ii. The second step aggregates the required compensating risk into the compensating swap tenors: 2Y, 5Y, 10Y, 15Y, 20Y and 30Y. If the tenor falls between two time periods, allocation occurs relative to the nearest two pillars in proportion to the time difference between the relevant pillar points (e.g., 12Y risk will be allocated 60% to 10Y and 40% to 15Y).

iii. Finally, the required notional size for each compensating swap is calculated to match the required risk sensitivity in each of the compensating swap tenors.

These calculations will be undertaken across all accounts with USD discounting risk in cleared trades as at close of business on Wednesday, October 14, 2020. Any trades cleared after this point will not be included in the compensating swap calculations, though they will be included in the value compensation calculations up to close of business on October 16, 2020.

Some LCH clients are accepting compensating swaps on the grounds that a combined cash/risk approach can restore the original risk profile more effectively while generating a robust conversion price. An entirely cash-based compensation based on client need or preference is also being offered.

To facilitate cash-only elections, LCH intends to run a centralized auction to:

i. Gauge the scope of offsetting swaps required.

ii. Establish the market value of these positions (which will then determine the cash payable).

iii. Calibrate the cash amounts and the spreads on the swaps provided to other users (i.e., to members and to clients who are taking the swaps).

Given that LCH currently offers no SOFR discounting, pricing will be determined by a centralized auction planned 1-2 days ahead of conversion date. Clearing house members will be asked to provide live bid and offer prices in each tenor bucket to determine the mid-price for conversion.

As the market prepares for CCPs to switch the rate for discounting all USD-denominated discounted products from the EFFR to SOFR in October 2020, the objective is that discount risk hedging needs will ultimately increase market activity in SOFR derivatives.

QUESTIONS OR COMMENTS?

If you have any questions regarding this change, please contact your BNY Mellon representative.

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2 [https://lch.com/sites/default/files/media/files/Transition%20to%20EuroSTR%20and%20SOFR%20Discounting%20in%20SwapClear%20Feb%202020%20FINAL.pdf](https://lch.com/sites/default/files/media/files/Transition%20to%20EuroSTR%20and%20SOFR%20Discounting%20in%20SwapClear%20Feb%202020%20FINAL.pdf)
