

CME Three-Month SOFR Futures and One-Month SOFR Futures

After extensive consultation with market participants, CME plans to launch Three-Month SOFR futures and One-Month SOFR futures as summarized below and in the following Exhibit.

Three-Month SOFR futures

- Price is IMM Index = 100 minus Rate.
- "Rate" is business-day-compounded SOFR interest during the contract Reference Quarter.
- Contract Reference Quarter starts on IMM Wednesday of third month before contract delivery month, and ends immediately before IMM Wednesday of contract delivery month.
- "Contract Month" is the month in which Reference Quarter begins. Example: For a "March" contract, Reference Quarter starts on IMM Wednesday of March and ends with contract final settlement on IMM Wednesday of June, the contract delivery month.
- \$25 per basis point per annum
- Initial contract listings will comprise the 20 March Quarterly months starting with June 2018 (ie, the contract scheduled for final settlement on Wednesday, 19 September 2018)
- Intermarket spreads versus the nearby 20 Three-Month Eurodollar (GE) futures – quarterly, White year through Gold year – should furnish a clear view of market assessment of the term structure of basis spreads between 3-month SOFR OIS exposures and corresponding 3-month Eurodollar exposures.

One-Month SOFR futures

- Price is IMM Index = 100 minus Rate.
- "Rate" is arithmetic average of daily SOFR values during contract delivery month.
- \$41.67 per basis point per annum
- Initial contract listings will comprise the nearest 7 calendar months, starting with May 2018.

 Intermarket spreads versus the nearest 7 monthly CBOT 30-Day Federal Funds futures should provide timely indication of market expectations across the nearby term structure of the fed funds-SOFR basis spread.

Complementarity between Three-Month SOFR futures and One-Month SOFR futures

For any Three-Month SOFR futures contract prior to the start of its Reference Quarter, the contract rate – the "Rate" portion of the "100 minus Rate" contract price – gauges market expectation of business-day compounded SOFR during the Reference Quarter, expressed as an interest rate per annum. After the nearby contract enters its Reference Quarter, the contract rate becomes a mix of (i) known SOFR values, ie, published values for all days from start of the Reference Quarter to the present, and (ii) market expectations of SOFR values for all remaining days in the Reference Quarter that lie ahead.

As the expiring contract progresses through its Reference Quarter, the forward-looking expectational component of its price plays a steadily diminishing role in fair valuation of the contract. In general, progressively decreasing uncertainty about the contract's final settlement price means steadily less contract price volatility. Seen in this light, the One-Month SOFR futures strip will make a useful complement to Three-Month SOFR futures for market participants who seek finer granularity in framing market expectations of future SOFR values, or who seek finer resolution of SOFR volatility, over the nearby 1-month to 4-month interval.



Exhibit

Three-Month SOFR Futures and One-Month SOFR Futures

Three-Month SOFR futures and One-Month SOFR futures shall trade on and according to the rules of Chicago Mercantile Exchange ("CME"), pending certification of contract terms with the US Commodity Futures Trading Commission and completion of all regulatory review periods.

| | CME Three-Month SOFR Futures | CME One-Month SOFR Futures | |
|----------------------------------|--|--|--|
| Trading Unit | Compounded daily Secured Overnight Financing Rate ("SOFR") interest during contract Reference Quarter, such that each basis point per annum of interest = \$25 per contract. | Average daily Secured Overnight Financing Rate ("SOFR") interest during futures contract Delivery Month, such that each basis point per annum of interest is worth \$41.67 per futures contract. | |
| | Reference Quarter: For a given contract, interval from (and including) 3rd Wed of 3rd month preceding Delivery Month, to (and not including) 3rd Wed of Delivery Month. | | |
| Price Basis | Contract-grade IMM Index: 100 minus R. | Contract-grade IMM Index: 100 minus R. | |
| | R = compounded daily SOFR interest during contract Reference Quarter. | R = average daily SOFR interest during contract Delivery Month. | |
| | Example: Contract price of 97.2950 IMM Index points signifies R = 2.705 percent per annum. | | |
| Contract Size | \$25 per basis point per annum | \$41.67 per basis point per annum | |
| Minimum Price Increment (MPI) | Contracts with Four Months or Less Until Termination of Trading: 0.0025 IMM Index points | 0.005 IMM Index points ($\frac{1}{2}$ basis point per annum) equal to \$20.835 per contract, provided that : | |
| | (1/4 basis point per annum) equal to \$6.25 per contract All Other Contracts: 0.005 IMM Index points (1/2 basis point per annum) equal to \$12.50 per contract | If first day of contract Delivery Month is Sat, Sun, or Mon, then MPI is 0.0025 Index points, equal to \$10.4175 per contract, as of first trading day of contract Delivery Month. | |
| | | If first day of contract Delivery Month is Tue, Wed, Thurs, or Fri, then MPI is 0.0025 Index points, equal to \$10.4175 per contract, as of last Sunday of month preceding contract Delivery Month. | |
| Termination of Trading | Last Day of Trading: Exchange Business Day first preceding 3rd Wed of Delivery Month. | Last Day of Trading: Last Exchange Business Day of contract Delivery Month. | |
| | Termination of Trading: Close of CME Globex trading on Last Day of Trading. | | |
| Delivery | Cash settlement, by reference to Final Settlement Price, on first US government securities market business day following Last Day of Trading. | | |
| | Final Settlement Price: Contract-grade IMM Index evaluated on the basis of realized SOFR values during contract Reference Quarter: | Final Settlement Price: Contract-grade IMM Index evaluated at R = arithmetic average of daily SOFR during Delivery Month. | |
| | $R = [\Pi i \{1+(d_i/360)^*(r_i/100)\} - 1] \times (360/D) \times 100$ | | |
| | n = Number of US government securities market business days in the Reference Quarter | | |
| | i ~ Running variable indexing US government securities market business days during Reference Quarter | | |
| | Π_i denotes the product of values indexed by the running variable, i = 1,2,,n. | | |
| | r _i = SOFR value for i th US government securities market business day | | |
| | d _i = Number of calendar days to which ri applies | | |
| | $\begin{array}{ll} D &=& \Sigma_i d_i (\text{ie, number of calendar days in Reference} \\ &=& \text{Quarter)} \end{array}$ | | |

| | CME Three-Month SOFR Futures | CME One-Month SOFR Futures | |
|-----------------------------|--|--|--|
| Delivery Months | Nearest 20 March Quarterly months (Mar, Jun, Sep, Dec). | Nearest 7 calendar months | |
| | For each contract, Contract Month is the month in which Reference Quarter begins. <i>Example:</i> For a "Sep" contract, Reference Quarter starts on IMM Wed of Sep and ends with Termination of Trading on the first US government securities market business day before IMM Wed of Dec, the contract Delivery Month. | | |
| Trading Venues and Hours | CME Globex and CME ClearPort: 5 p.m. to 4 p.m. Sun-Fri. | | |
| CME Globex Algorithm | Allocation (A Algorithm, with Top Order Allocation = 100% and Pro Rata Allocation = 100%) | Split FIFO and Pro-Rata (K Algorithm, with Top Order Allocation = 100% and Pro Rata Allocation = 100%) | |
| Block Trade Minimum Size | ATH 250 contracts | ATH 125 contracts | |
| | ETH 500 | ETH 250 | |
| | RTH 1,000 | RTH 500 | |
| | ATH – Asian Trading Hours (4pm–12am, Mon-Fri on regular business days and at all weekend times) | | |
| | ETH – European Trading Hours (12am– 7am, Mon-Fri on regular business days) | | |
| | RTH – Regular Trading Hours (7am-4pm, Mon-Fri on regular business days) | | |
| Product Code | CME: SR3 | CME: SR1 | |
| | Bloomberg: SFR Cmdty <go></go> | Bloomberg: SER Cmdty <go></go> | |



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