SUBMISSION COVER SHEET

***IMPORTANT*: Check box if Confidential Treatment is requested** ☐

Registered Entity Identifier Code (optional): 18-069 (2 of 2)

Organization: Chicago Mercantile Exchange Inc. ("CME")

Filing as a: ☒ **DCM** ☐ **SEF** ☐ **DCO** ☐ **SDR**

Please note - only ONE choice allowed.

Filing Date: 04/19/2018 Filing Description: Initial Listing of Three-Month SOFR Futures and One-Month SOFR Futures Contracts

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

☐	Certification	§ 40.6(a)
☐	Approval	§ 40.5(a)
☐	Notification	§ 40.6(d)
☐	Advance Notice of SIDCO Rule Change	§ 40.10(a)
☐	SIDCO Emergency Rule Change	§ 40.10(h)

Rule Numbers:

New Product **Please note only ONE product per Submission.**

☒	Certification	§ 40.2(a)
☐	Certification Security Futures	§ 41.23(a)
☐	Certification Swap Class	§ 40.2(d)
☐	Approval	§ 40.3(a)
☐	Approval Security Futures	§ 41.23(b)
☐	Novel Derivative Product Notification	§ 40.12(a)
☐	Swap Submission	§ 39.5

Product Terms and Conditions (product related Rules and Rule Amendments)

☐	Certification	§ 40.6(a)
☐	Certification Made Available to Trade Determination	§ 40.6(a)
☐	Certification Security Futures	§ 41.24(a)
☐	Delisting (No Open Interest)	§ 40.6(a)
☐	Approval	§ 40.5(a)
☐	Approval Made Available to Trade Determination	§ 40.5(a)
☐	Approval Security Futures	§ 41.24(c)
☐	Approval Amendments to enumerated agricultural products	§ 40.4(a), § 40.5(a)
☐	"Non-Material Agricultural Rule Change"	§ 40.4(b)(5)
☐	Notification	§ 40.6(d)

Official Name(s) of Product(s) Affected:

Rule Numbers:

Christopher Bowen
Managing Director and Chief Regulatory Counsel
Legal Department

April 19, 2018

VIA ELECTRONIC PORTAL

Mr. Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
3 Lafayette Center
1155 21st Street NW
Washington, DC 20581

Re: CFTC Regulation 40.2(a) Notification Regarding the Initial Listing of the Three-Month SOFR Futures and One-Month SOFR Futures Contracts
CME Submission No. 18-069 (2 of 2)

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. ("CME" or "Exchange") hereby notifies the Commodity Futures Trading Commission ("CFTC") that it is self-certifying the initial listing of the Three-Month SOFR Futures and One-Month SOFR Futures contracts (the "Contract" individually, and the "Contracts" collectively) for trading on the CME Globex electronic trading platform ("CME Globex") and for submission for clearing on CME ClearPort on Sunday, May 6, 2018, for trade date Monday, May 7, 2018.

The Contracts will share two common features:

(1) Both will deliver by cash settlement. In each case the final settlement price of an expiring Contract shall be based upon the Secured Overnight Financing Rate ("SOFR") benchmark, for which regular production and publication began on April 3, 2018, under the auspices of the Federal Reserve Bank of New York ("FRBNY") and the Office of Financial Research of the US Department of the Treasury ("OFR").[1]

(2) In each case, the Contract price basis will be the IMM Index, or "100 minus Contract interest rate", familiar to users of established short-term interest rate futures products such as the Exchange's Three-Month Eurodollar futures or The Board of Trade of the City of Chicago, Inc. ("CBOT") 30-Day Federal Funds futures.

In what follows, Section 1 summarizes the background and workings of the SOFR benchmark. Sections 2 and 3, respectively, discuss the terms and conditions of the Contracts. Section 4 addresses compliance of Contract terms and conditions with the applicable core principles for designated contract markets ("Core Principles") set forth in the Commodity Exchange Act ("CEA" or "Act").

Contract terms and conditions for Three-Month SOFR Futures and One-Month SOFR Futures shall be set forth in CME Rulebook Chapters 460 and 461, respectively, the texts of which appear in Appendixes A and B, respectively. Appendix C addresses the applicable position limits and reportable position levels pursuant to CME Rules 560 and 561. Appendix D presents the applicable CME Globex non-reviewable

[1] FRBNY, "Statement Introducing the Treasury Repo Reference Rates", Markets and Policy Implementation, Statements and Operating Policies, April 3, 2018, which is available at: https://www.newyorkfed.org/markets/opolicy/operating_policy_180403

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trading ranges pursuant to CME Rule 588.H., and Appendix E gives the pertinent special price fluctuation limits pursuant to CME Rule 589. Appendix F sets forth the Exchange fees applicable to trading and clearing the Contracts.

Section 1 – The Secured Overnight Financing Rate

In November 2014, the Federal Reserve System convened the Alternative Reference Rates Committee ("ARRC") to identify (i) a set of alternative interest rate benchmarks that would be firmly based on transactions in an active underlying market and that would comply with emerging standards for financial benchmarks, such as the IOSCO *Principles for Financial Benchmarks*, and (ii) an adoption plan to facilitate broad acceptance and use of such alternative reference rate benchmarks. The ARRC also was asked to consider the best practices related to financial contract design that would ensure that financial contracts are resilient to possible cessation or material alteration of existing or new benchmarks.[2]

In June 2017, the ARRC identified the SOFR as the interest rate benchmark that, in its consensus view, would represent best practices for use as the underlying reference in new US dollar interest rate derivatives and other US dollar-denominated financial contracts.[3]

The SOFR is computed, and is published daily at approximately 8:00 am Eastern time, by the FRBNY. It is a fully transactions-based interest rate benchmark incorporating data on transactions in overnight repurchase agreements collateralized by Treasury securities ("repo") drawn from three sources:[4]

- all tri-party Treasury general collateral repo transactions settled on the books of Bank of New York Mellon. The FRBNY collects such trade-by-trade data directly from Bank of New York Mellon, pursuant to the supervisory authority of the Board of Governors of the Federal Reserve System.

- all tri-party Treasury general collateral repo transactions mediated through the General Collateral Finance ("GCF") repo market of the Fixed Income Clearing Corporation ("FICC"). FRBNY has entered into an agreement with DTCC Solutions LLC, an affiliate of the Depository Trust & Clearing Corporation ("DTCC"), to obtain these transaction data.

- bilateral Treasury repo transactions cleared through the FICC Delivery-versus-Payment ("DVP") service. Here too, FRBNY has entered into an agreement with DTCC Solutions LLC to obtain these transaction data.

On any given day, prior to pooling transaction data from these three sources, the FRBNY will rank the day's FICC DVP bilateral repo transaction volumes by their transaction rates, from lowest to highest, and will then filter out 25 percent of trading volume corresponding to the lowest transaction rates. The objective of such filtering is to remove repo transactions in which Treasury collateral is likeliest to be trading "special", so as to achieve a residual set of bilateral repo data that largely (if not purely) reflects general collateral transactions.

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[2] See Alternative Reference Rates Committee at: https://www.newyorkfed.org/arrc/index.html

[3] See ARRC, *Agenda, Minutes, and Presentation*, June 16, 2017, and ARRC *Agenda, Minutes, and Press Release*, June 22, 2017, which are available at: https://www.newyorkfed.org/arrc/meetings

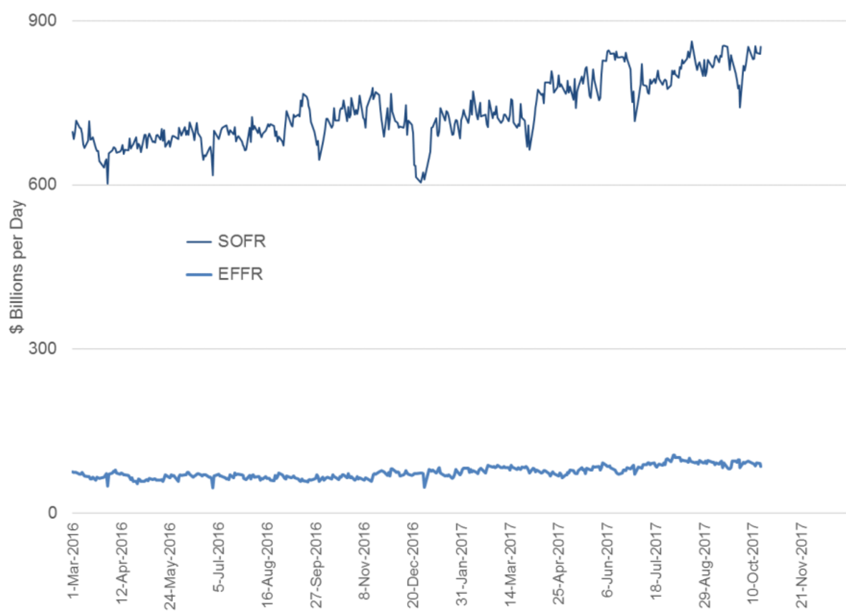
[4] See Federal Reserve System, *Request for Information Relating to Production of Rates*, 82 FR 41259, August 30, 2017, which is available at: https://www.federalregister.gov/documents/2017/08/30/2017-18402/request-for-information-relating-to-production-of-rates , and

Federal Reserve System, *Production of Rates Based on Data for Repurchase Agreements,* 82 FR 58397, December 12, 2017, which is available at: https://www.federalregister.gov/documents/2017/12/12/2017-26761/production-of-rates-based-on-data-for-repurchase-agreements

After filtering the FICC DVP bilateral repo transaction data, the FRBNY will pool the data from all three sources, rank all repo transaction volumes by their transaction rates, from lowest to highest, and then compute the transaction-weighted median repo rate, *i.e*., the repo trade rate for which half of the day's repo transaction volume is made at transaction rates that are equal to it or less than it, and for which the other half of the day's repo transaction volume is made at transaction rates that are equal to it or greater than it. The transaction-weighted median repo rate becomes the day's SOFR benchmark value.

To date, the FRBNY has published retrospective daily historical data for SOFR for the interval from August 22, 2014, through October 17, 2017.[5] The sub-interval from March 1, 2016, through October 17, 2017, overlaps with the commencement of publication of daily volumes in overnight unsecured domestic bank funding transactions that enter into the FRBNY's calculation of the daily effective federal funds rate ("EFFR"). Exhibit 1 compares these transaction volumes, and thereby conveys a sense of the relative scale of the transaction pools that support these two short-term interest rate benchmarks.

Exhibit 1 --
Transaction Volumes for the Daily Effective Federal Funds Rate (EFFR) and the Secured Overnight Financing Rate (SOFR), March 1, 2016, to October 17, 2017



Source: FRBNY

Over this sub-interval, nearly 20 months in duration, the median daily transaction volumes were $721 billion for SOFR and $73 billion for EFFR. Critical from the standpoint of benchmark reliability and robustness is that the minimum daily transaction volumes were $515 billion for SOFR versus $46 billion for EFFR. At both distributional quantiles – minimum and 50th percentile -- the transaction data universe that supports the SOFR is an order of magnitude greater than the data pool that supports the EFFR.[6] The same proportionality emerges during the first week of SOFR publication (April 2-6, 2018). During these five

[5] See Frost, Joshua, *Presentation at the Alternative Reference Rates Committee Roundtable*, FRBNY, New York, November 8, 2017, which is available at: https://www.newyorkfed.org/newsevents/speeches/2017/fro171108 ; and Bayeux, Kathryn, et al, *Introducing the Revised Broad Treasuries Financing Rate*, Liberty Street Economics, FRBNY, New York, June 19, 2017, revised January 30, 2018, which is available at: http://libertystreeteconomics.newyorkfed.org/2017/06/introducing-the-revised-broad-treasuries-financing-rate.html

[6] For further information on the SOFR benchmark, see Logan, Lorie K, *The Role of the New York Fed as Administrator and Producer of Reference Rates*, Remarks at the Annual Primary Dealer Meeting, FRBNY, New York, January 9, 2018, which is available at: https://www.newyorkfed.org/newsevents/speeches/2018/log180109

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business days, the median daily transaction volume supporting SOFR is $845 billion, whereas the median daily transaction volume supporting EFFR is $88 billion.[7]

Section 2 – Contract Specifications for CME Three-Month SOFR Futures

In broad terms, the price of a CME Three-Month SOFR Futures Contract for a given delivery month shall be based on market expectations of compounded daily SOFR interest during the approximate three-month interval that concludes at such contract's final settlement. Exhibit 2 summarizes Contract specifications.

Price Basis and Unit of Trade

Prices shall be quoted and made in terms of the IMM Index, *ie*, 100 minus the Contract rate. For a Contract for a given Delivery Month, the Contract rate shall be compounded daily SOFR interest during the corresponding Reference Quarter, expressed as an interest rate per annum. For instance, a price of 98.76 Index points would signify a Contract rate of 1.24 percent per annum

Each Contract shall be sized at $2,500 times the corresponding IMM Index. Accordingly, each basis point per annum of the Contract rate (*i.e.*, 0.01 Index points) shall be worth $25 per Contract.

Contract Critical Dates: Three-Month SOFR Futures versus Three-Month Eurodollar Futures

The Reference Quarter for a Contract for a given Delivery Month is the interval spanning from (and including) the third Wednesday of the third month preceding the Delivery Month, to (and not including) the third Wednesday of the Delivery Month. *As a nomenclatural convention, for any Three-Month SOFR Futures contract, the Contract Month shall be the month in which the Contract's Reference Quarter begins*, not the Contract Delivery Month (when the Reference Quarter concludes and the contract comes to final settlement). This convention clarifies the alignment of Three-Month SOFR Futures with the Exchange's Three-Month Eurodollar futures. To see how, consider two futures contracts:

> One is a Three-Month Eurodollar Future ("GE") that comes to final settlement on the Monday before the third Wednesday of September. The final settlement price is based on the US dollar three-month ICE LIBOR® that corresponds to a three-month unsecured bank funding transaction that settles on the third Wednesday of September and that matures three months later.
>
> The other is a Three-Month SOFR Future ("SR3") that comes to final settlement on the third Wednesday of the following December. The Reference Quarter – the interval of interest rate exposure that informs the Contract final settlement price – starts on the third Wednesday of September.

The SR3 Contract Month is "September" because the Contract Reference Quarter starts on (and includes) the third Wednesday of September and ends with (but does not include) the third Wednesday of the following December. This ensures that the interest rate exposure period for one contract – either September SR3 or September GE -- is essentially the same as for the other. The correspondence between them is that the cash market transaction settlement date corresponding to final settlement of September GE futures matches the start of the Contract Reference Quarter for September SR3 futures.

Exhibit 2 -- Contract Specifications for CME Three-Month SOFR Futures

All times of day are Central Time ("CT") unless otherwise noted.

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. *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.

[7] See FRBNY, *Repo Rates Data Historical Search,* at: https://apps.newyorkfed.org/markets/autorates/Rates-Search-Page, and FRBNY, *Federal Funds Data*, at: https://apps.newyorkfed.org/markets/autorates/fed%20funds.

Price Basis	Contract-grade IMM Index: *100 minus R* *R* = Compounded daily SOFR interest during contract Reference Quarter. (See ***Delivery***.) *Example*: Contract price of 97.2850 IMM Index points signifies *R* = 2.715 percent per annum.
Contract Size	$2,500 x contract-grade IMM Index
Minimum Price Increment	*Any Contract with Four Months or Less Until Last Day of Trading:* 0.0025 IMM Index points (¼ basis point per annum) equal to $6.25 per contract *All Other Contracts*: 0.005 IMM Index points (½ basis point per annum) equal to $12.50 per contract
Delivery Months	Nearest 20 March Quarterly months (Mar, Jun, Sep, Dec) First nearby listed contract: Contract Month = Jun 2018 (*i.e*., Delivery Month = Sep 2018). For each contract, *Contract Month* is the month in which Reference Quarter begins. Example: For the Jun 2018 contract, Reference Quarter starts on IMM Wed of Jun 2018 and ends with Termination of Trading on the first US government securities market business day before IMM Wed of Sep 2018, the contract Delivery Month.
Termination of Trading	*Last Day of Trading*: Exchange Business Day first preceding 3rd Wed of Delivery Month. *Termination of Trading*: Close of CME Globex trading on Last Day of Trading.
Delivery	By cash settlement, by reference to Final Settlement Price, on first US government securities market business day following Last Day of Trading (typically 3rd Wed of Delivery Month). ***Final Settlement Price***: Contract-grade IMM Index (100 minus R) evaluated on the basis of realized SOFR values during contract Reference Quarter: $R = [\ \Pi_{i=1\ldots n}\{1+(d_i/360)*(r_i/100)\} - 1\ ] \times (360/D) \times 100$ 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, $i = 1,2,\ldots,(n-1),n$. $\Pi_{i=1\ldots n}$ denotes the product of values indexed by the running variable, $i = 1,2,\ldots,n$. r_i = SOFR value for i^{th} US government securities market business day d_i = Number of calendar days to which r_i applies D = $\Sigma_i d_i$ (*ie*, number of calendar days in Reference Quarter)
Trading Venues and Hours	*CME Globex* and *CME ClearPort*: 5pm to 4pm CT, Sun-Fri.
CME Globex Algorithm	Allocation (A Algorithm, with Top Order Allocation = 100% and Pro Rata Allocation = 100%)
Block Trade Minima	250 contracts in Asian Trading Hours (4pm–12am CT, Mon-Fri on regular business days and at all weekend times) 500 contracts in European Trading Hours (12am–7am CT, Mon-Fri on regular business days) 1,000 contracts in Regular Trading Hours (7am–4pm CT, Mon-Fri on regular business days)
Commodity Code	SR3

Termination of Trading, Final Settlement, and the Reference Quarter

Contract Months at initial listing will comprise the 20 March Quarterly months (March, June, September, or December) from June 2018 through March 2023, inclusive. (Equivalently, Delivery Months at initial listing will comprise the 20 March Quarterly months from September 2018 through June 2023, inclusive.)

Trading in an expiring Contract will terminate at the close of CME Globex trading on the first Exchange business day that precedes the third Wednesday the Contract Delivery Month (or, equivalently, the first Exchange business day preceding the final day of the Contract Reference Quarter).

Delivery on an expiring Contract will be by cash settlement, through a final mark-to-market made by reference to the Contract final settlement price. The final settlement price will be the Contract IMM Index, 100 minus R, with R evaluated as the compounded daily SOFR interest per annum during the corresponding Reference Quarter:

$R = \quad [\,\Pi_{i=1\ldots n}\,\{1+(d_i/360)*(r_i/100)\} - 1\,] \;\; x \;\; (360/D) \;\; x \;\; 100$

n — the number of US government securities market business days during the Reference Quarter[8]

i — a running variable that indexes each US government securities market business day during the Reference Quarter, such that i takes the values $i = 1,2,\ldots,(n-1),n.$

$\Pi_{i=1\ldots n}$ — denotes the product of the values indexed by the running variable, $i = 1,2,\ldots,n.$

r_i — the SOFR value for the i^{th} US government securities market business day

d_i — the number of calendar days to which r_i applies. For example, if the i^{th} day is a Monday, a Tuesday, a Wednesday, or a Thursday, and if the next following calendar day is a US government securities market business day, then $d_i = 1$. If the i^{th} day is a Friday, and if the next following Monday is a US government securities market business day, then $d_i = 3$.

$D =$ — the number of calendar days in the Reference Quarter, *ie*, $D = \Sigma_i d_i$

Section 3 – Contract Specifications for One-Month SOFR Futures

Exhibit 3 summarizes One-Month SOFR Futures specifications. The structure of the Contract – its price basis, size, minimum price increments, critical dates, and method for final settlement price determination -- closely resembles the structure of the CBOT 30-Day Federal Funds Futures contract. Delivery Months at initial listing will comprise the 7 calendar months from May 2018 through November 2018, inclusive.[9]

Price Basis and Unit of Trade

Prices shall be quoted and made in terms of the IMM Index, *i.e.*, 100 minus the Contract rate. For a Contract for a given delivery month, the Contract rate shall be average daily SOFR interest during the delivery month, expressed as an interest rate per annum. For instance, a price of 98.765 Index points would signify a Contract rate of 1.235 percent per annum

Each Contract shall be sized at $4,167 times the corresponding IMM Index. Accordingly, each basis point per annum of the Contract rate (*i.e.*, 0.01 Index points) shall be worth $41.67 per Contract.

The difference in final settlement price determination between Three-Month SOFR Futures and One-Month SOFR Futures merits emphasis –

> The final settlement price of an expiring Three-Month SOFR Futures Contract is based on an interest rate per annum that reflects daily compounded SOFR interest over the course of the Contract's three-month Reference Quarter. As such, the calculation closely resembles the reckoning of floating rate interest in a standard three-month EFFR-reference overnight index swap.

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[8] "US government securities market business days" are all weekdays excluding any dates identified by the Securities Industry and Financial Markets Association ("SIFMA") in its U.S. Holiday Recommendations, which are available at: https://www.sifma.org/resources/general/holiday-schedule/#US

[9] Unlike Three-Month SOFR Futures, for One-Month SOFR Futures there is no distinction between Contract Month and Delivery Month.

By contrast, the final settlement price of an expiring One-Month SOFR Futures Contract is based on an interest rate per annum that reflects average daily simple interest during the Contract's delivery month.

Exhibit 3 -- Contract Specifications for CME One-Month SOFR Futures

All times of day are Central Time ("CT") unless otherwise noted.

Trading Unit	*Average daily SOFR interest during futures contract Delivery Month, such that each basis point per annum of interest is worth $41.67 per futures contract.*
Price Basis	*Price is quoted in terms of the contract-grade IMM Index: 100 minus R* *R = Average daily SOFR interest during futures contract Delivery Month.* *Example: Contract price of 97.4500 IMM Index points signifies R = 2.55 percent per annum.*
Contract Size	*$4,167 x contract-grade IMM Index*
Minimum Price Increment	*0.005 IMM Index points (½ basis point per annum) equal to $20.835 per contract, provided that:* • *If first day of contract Delivery Month is Sat, Sun, or Mon, then minimum price increment is 0.0025 Index points, equal to $10.4175 per contract, as of first Exchange Trading Day of contract Delivery Month.* • *If first day of contract Delivery Month is Tue, Wed, Thurs, or Fri, then minimum price increment is 0.0025 Index points, equal to $10.4175 per contract, as of last Sunday of month preceding contract Delivery Month.*
Delivery Months	*Nearest 7 calendar months.* *First nearby listed month: May 2018*
Termination of Trading	*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	*By 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 at R = arithmetic average of daily SOFR values during Delivery Month.*
Trading Venues and Hours	*CME Globex and CME ClearPort: 5pm to 4pm CT, Sun-Fri.*
CME Globex Algorithm	*Split FIFO and Pro-Rata* *(K Algorithm, with Top Order Allocation = 100% and Pro Rata Allocation = 100%)*
Block Trade Minima	*125 contracts in Asian Trading Hours* *(4pm–12am CT, Mon-Fri on regular business days and at all weekend times)* *250 contracts in European Trading Hours (12am–7am CT, Mon-Fri on regular business days)* *500 contracts in Regular Trading Hours (7am–4pm CT, Mon-Fri on regular business days)*
Commodity Code	*SR1*

Section 4 -- Compliance with Core Principles

The Exchange has reviewed the Core Principles as set forth in the Act and has identified that the new product terms and conditions certified herein may bear upon the following Core Principles:

Core Principle 2 – Compliance with Rules

Trading in the Contracts shall be subject to:

- CME Rulebook Chapter 4, which includes prohibitions against fraudulent, noncompetitive, unfair, and abusive practices;
- the Exchange's trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook; and
- monitoring and surveillance by CME Group's Market Regulation Department, which has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

Core Principle 3 – Contracts Not Readily Subject to Manipulation

As detailed in Section 1, the SOFR benchmark is supported by a demonstrably massive transaction pool, drawn from a diverse set of data sources. Moreover, the statistical measure employed to produce the benchmark value on any given day – the transaction-volume-weighted median repo rate -- is highly robust.

Final settlement prices for either of the Contracts shall be based on multiple daily values of the SOFR benchmark, spanning a calendar month in the case of expiring One-Month SOFR Futures, or an interval of approximately 13 weeks in the case of expiring Three-Month SOFR Futures.

In view of these considerations, both the SOFR benchmark itself and its application in connection with the Contracts possess sufficient integrity to deflect attempted cornering, manipulation, crowding, or exertion of undue influence upon final settlement of expiring Contracts.

Core Principle 4 – Prevention of Market Disruption

Trading in the Contracts shall be subject to CME Rulebook Chapters 4 and 7, which include prohibitions on manipulation, price distortion, and disruption to the expiration process. As with any product listed for trading on a CME Group designated contract market, futures trading activity shall be subject to monitoring and surveillance by CME Group's Market Regulation Department.

Core Principle 5 – Position Limits or Accountability

Three-Month SOFR Futures shall be subject to a Position Reporting Level of 850 contracts, a Single-Month Position Accountability Level of 10,000 net futures contract equivalents, and an All-Month Position Accountability Level of 10,000 net futures contract equivalents.

One-Month SOFR Futures shall be subject to a Position Reporting Level of 600 contracts, a Single-Month Position Accountability Level of 3,000 net futures contract equivalents, and an All-Month Position Accountability Level of 3,000 net futures contract equivalents.

To appreciate the proportions of the Position Accountability standards, assume that the representative level of traffic in the market for overnight Treasury general collateral repo, which supports the SOFR benchmark, is around $721 billion per day (equal to the median daily value during the nearly 20-month historical interval depicted in Exhibit 1).

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Relative to this trading flow, the hypothetical holdings reflected in the Position Accountability Levels for Three-Month SOFR Futures signify less than 1.4 percent, and those for One-Month SOFR Futures represent around 2.1 percent.[10]

Alternatively, consider that $979.6 billion was the median level of overnight Treasury repo (*ie*, securities out, monies in), excluding repo collateralized by Treasury inflation-protected securities, that was held by primary dealers in the US government securities market during 2017.[11] Relative to this measure of outstanding repo holdings, the hypothetical holdings reflected in the Position Accountability Levels for Three-Month SOFR Futures and One-Month SOFR Futures represent approximately 1 percent and 1.5 percent, respectively.

Core Principle 7 – Availability of General Information

The Exchange shall disseminate a Special Executive Report ("SER") that sets forth information regarding the specifications, terms, and conditions of the Contracts. The SER will also be available on the CME Group website.

Core Principle 8 – Daily Publication of Trading Information

The Exchange shall publish trading volumes, open interest levels, and price information for the Contracts daily on its website and through quote vendors.

Core Principle 9 – Execution of Transactions

The Contracts will be listed for trading on the CME Globex electronic trading and for clearing through CME ClearPort. The CME Globex electronic trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity.

Core Principle 10 – Trade Information

All requisite trade information shall be included in the audit trail and will suffice for the Market Regulation Department to monitor for market abuse.

Core Principle 11 – Financial Integrity of Contracts

The Contracts shall be cleared by CME Clearing, which is registered with the Commission as a derivatives clearing organization, and which is subject to all CFTC regulations related thereto.

Core Principle 12 – Protection of Markets and Market Participants

CME Rulebook Chapters 4 and 5 set forth multiple strictures that preclude intermediaries from disadvantaging their customers. These Rules apply to trading in all of the Exchange's competitive trading venues and will apply to transactions in the Contracts.

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[10] For Three-Month SOFR Futures, each basis point per annum of contract interest is specified to be worth $25 per contract. The SOFR interest exposure impounded in the contract final settlement price accumulates during the contract Reference Quarter, which typically spans 13 weeks, or 91 days. Thus, the implied principal amount of the hypothetical generic open overnight Treasury general collateral RP transaction that underlies each contract is typically around $989,011 (approximately equal to ($25 per basis point per contract / 0.0001 per year) x (360 days per year / 91 days)). Accordingly, for purposes of comparison, the 10,000-contract position signified by the Position Accountability Level may be interpreted as having a size of approximately $9.89011 billion (approximately equal to (10,000 contracts) x ($989,011 per contract)).

Likewise for One-Month SOFR Futures, if (i) each basis point per annum of contract interest is defined to be worth $41.67 per contract, and (ii) the contract final settlement price reflects average SOFR interest over the interval of one calendar month with generic length of 30.4375 days (equal to (365.25 days/year) / (12 months per year)), then the implied principal amount of the hypothetical generic open overnight Treasury general collateral RP transaction underlying the contract is around $4,928,526 (approximately equal to ($41.67 per basis point / 0.0001 per year) x (360 days per year / 30.4375 days)). Thus, the 3,000-contract Position Accountability Level may be interpreted as having size around $14.786 billion (approximately equal to (3,000 contracts) x ($4,928,526 per contract)).

[11] FRBNY, Primary Dealer Statistics, available at: https://www.newyorkfed.org/markets/gsds/search.html

Core Principle 13 – Disciplinary Procedures
CME Rulebook Chapter 4 provides for the Exchange to discipline, suspend, or expel members or market participants who violate the rules of the Exchange. Trading in the Contracts shall be subject to these provisions. The Exchange's Market Regulation Department has the authority to exercise its powers of enforcement, in the event that rule violations in the Contracts are identified.

Core Principle 14 – Dispute Resolution
Disputes in respect of these futures shall be subject to the arbitration provisions set forth in CME Rulebook Chapter 6, which allow all nonmembers to submit to arbitration claims for financial loss resulting from transactions on the Exchange. Pursuant to these provisions, any member named as a respondent in any such claim submitted by a nonmember is required to participate in arbitration proceedings. Additionally, the Exchange requires members to resolve via arbitration all disputes concerning transactions on the Exchange.

The Exchange certifies that the Contracts comply with the Act, including all regulations thereunder. There were no substantive opposing views to this proposal.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at http://www.cmegroup.com/market-regulation/rule-fillings.html. Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments:	Appendix A	CME Rulebook Chapter 460
	Appendix B	CME Rulebook Chapter 461
	Appendix C	Position Limit, Position Accountability, and Reportable Level Table, CME Rulebook Chapter 5 (attached under separate cover)
	Appendix D	CME Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table
	Appendix E	Special Price Fluctuation Limits and Daily Price Limits Table, CME Rulebook Chapter 5
	Appendix F	Exchange Fees

Appendix A

CME Rulebook
Chapter 460
Three-Month SOFR Futures

46000. SCOPE OF CHAPTER

This chapter is limited in application to Three-Month SOFR futures ("futures" or "contract"). In addition to this chapter, futures shall be subject to the general rules and regulations of the Exchange insofar as applicable.

Unless otherwise specified, times referenced herein shall indicate Chicago time.

46001. CONTRACT SPECIFICATIONS

Each contract is valued at $2,500 times the contract-grade IMM Index (Rule 46002.C.).

46002. TRADING SPECIFICATIONS

46002.A. Trading Schedule

Contracts shall be scheduled for trading during such hours and for delivery in such months as may be determined by the Exchange.

46002.B. Trading Unit

For a contract for a given delivery month, the unit of trading shall be compounded daily Secured Overnight Financing Rate ("SOFR") interest during the contract Reference Quarter (Rule 46003.A.1.), expressed as an interest rate per annum for which (i) such interest rate shall accrue on the basis of the actual number of days spanned by such contract Reference Quarter, divided by a 360-day year, and (ii) each basis point per annum of such interest rate shall be worth $25 per futures contract. The SOFR shall be as published by the Federal Reserve Bank of New York ("FRBNY").

46002.C. Price Basis and Minimum Price Increments

For a contract for a given delivery month, prices shall be quoted and made in terms of the contract IMM Index ("Index"), 100.0000 minus compounded daily SOFR interest during the contract Reference Quarter, as specified in Rule 46002.B.

> *Example*: Where the value of such compounded daily SOFR is 2.055 percent per annum, it shall be quoted as an Index value of 97.9450.

The minimum price fluctuation shall be 0.005 Index points, equal to $12.50 per contract, *provided that* the minimum price fluctuation shall be 0.0025 Index points, equal to $6.25 per contract, for any contract with four months or less until its termination of trading (Rule 46002.G.), where the applicable four-month interval shall be defined so as to begin on, and to include, either (i) the Monday before the third Wednesday of the fourth month preceding the month in which trading in such contract terminates, if such Monday is a Business Day, or (ii) the Business Day next following such Monday, if such Monday is not a Business Day.

46002.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

46002.E. Special Price Fluctuation Limits
At the commencement of each trading day, the contract shall be subject to special price fluctuation limits as set forth in Rule 589 and in the Special Price Fluctuation Limits Table in the Interpretations & Special Notices Section of Chapter 5.

46002.F. [Reserved]

46002.G. Termination of Trading
Trading in an expiring contract shall terminate at the close of trading on the Business Day immediately preceding the third Wednesday of the contract delivery month.

46002.H. [Reserved]

46003. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

46003.A. Final Settlement Price

1. Definition of Reference Quarter
For a contract for a given delivery month, the Reference Quarter shall be the interval that ends on (and does not include) the third Wednesday of the contract delivery month, and that begins on (and includes) the third Wednesday of the third calendar month preceding the contract delivery month.

> *Example*: For a hypothetical contract for which the delivery month is March 2022, the contract Reference Quarter shall start on (and shall include) the third Wednesday of December 2021 (December 15, 2021) and shall end on (and shall not include) the third Wednesday of March 2022 (March 16, 2022).

2. Definition of Final Settlement Price
For a contract for a given delivery month, the Final Settlement Price shall be 100 minus compounded daily SOFR during the contract Reference Quarter ("R"), as follows:

Final Settlement Price = 100 minus R

where

R = $[\ \Pi_{i=1\ldots n}\{1+(d_i/360)*(r_i/100)\} - 1\ ] \times (360/D) \times 100$

n = the number of US government securities market business days ("cash business days") during such Reference Quarter.

i is the running variable that indexes each cash business day in such Reference Quarter, such that i takes the values $i = 1,2,\ldots,(n\text{-}1),n$.

$\Pi_{i=1\ldots n}$ denotes the product of the values indexed by the running variable, $i = 1,2,\ldots,n$.

r_i = the SOFR value corresponding to cash business day i, expressed as an interest rate per annum.

Example: If SOFR for cash business day i is two and one quarter percent, then r_i = 2.25.

d_i = the number of calendar days to which r_i applies. For any calendar day that is not a cash business day (*eg*, weekend days, US government securities market holidays), the applicable value shall be SOFR for the immediately preceding cash business day.

Examples: If the i^{th} day is a Monday, a Tuesday, a Wednesday, or a Thursday, and if the next following calendar day is a cash business day, then d_i = 1. If the i^{th} day is a Friday, and if the next following Monday is a cash business day, then d_i = 3.

D = the number of calendar days in the Reference Quarter: $D = \Sigma_{i=1 \ldots n} d_i$.

For the purposes of this Rule, "US government securities market business days" shall mean all weekdays excluding any dates identified by the Securities Industry and Financial Markets Association in its U.S. Holiday Recommendations.

3. Computational Conventions

The final settlement price for an expiring contract shall be calculated by the Exchange on the day on which the FRBNY publishes the SOFR value for the last day of such contract's Reference Quarter (Rule 46003.A.1.). Customarily, though not always, such publication will occur on the third Wednesday of such contract's delivery month.

The SOFR value for the last day of such expiring contract's Reference Quarter shall be as first published by the FRBNY.

The value of *R* determined pursuant to Rule 46003.A.2. shall be rounded to the nearest 1/10,000th of one percent per annum, *ie*, the nearest 1/100th of one interest rate basis point per annum, or 0.0001 Index points. A tie value, *ie*, any such value ending in ending in 0.00005, shall be rounded up.

> *Example*: A value of 3.14155 percent per annum would be rounded up to 3.1416 percent per annum, and then subtracted from 100.000 to determine a contract final settlement price of 96.8584 Index points.

46003.B. Final Settlement

Clearing members holding open positions in a contract at the time of termination of trading in such contract shall make payment to or receive payment from the Clearing House in accordance with normal variation performance bond procedures based on a settlement price equal to the final settlement price.

46004.-35. [RESERVED]

(End Chapter 460)

Appendix B

CME Rulebook
Chapter 461
One-Month SOFR Futures

46100. SCOPE OF CHAPTER

This chapter is limited in application to One-Month SOFR futures ("futures" or "contract"). In addition to this chapter, futures shall be subject to the general rules and regulations of the Exchange insofar as applicable.

Unless otherwise specified, times referenced herein shall indicate Chicago time.

46101. CONTRACT SPECIFICATIONS

Each contract is valued at $4,167 times the contract-grade IMM Index (Rule 46102.C.).

46102. TRADING SPECIFICATIONS

46102.A. Trading Schedule

Contracts shall be scheduled for trading during such hours and for delivery in such months as may be determined by the Exchange.

46102.B. Trading Unit

For a contract for a given delivery month, the unit of trading shall be average daily Secured Overnight Financing Rate ("SOFR") interest during such contract's delivery month, subject to Rule 46103., expressed as an interest rate per annum for which (i) such interest rate shall be on the basis of the actual number of days in such delivery month, divided by a 360-day year, and (ii) each basis point per annum of such interest rate shall be worth $41.67 per futures contract. The SOFR shall be as published by the Federal Reserve Bank of New York ("FRBNY").

46102.C. Price Basis and Minimum Price Increments

For a contract for a given delivery month, prices shall be quoted and made in terms of the contract IMM Index ("Index"), 100.0000 minus average daily SOFR during the contract delivery month, as specified in Rule 46102.B.

> *Example*: Where the value of such average daily SOFR is 2.0275 percent per annum, it shall be quoted as an Index value of 97.9725.

The minimum price fluctuation shall be 0.005 Index points, equal to $20.835 per contract, *provided that*:

> Where the first day of a contract's delivery month is a Saturday, a Sunday, or a Monday, the minimum price fluctuation of such contract shall be 0.0025 Index points, equal to $10.4175 per contract, as of the first Trading Day of such contract's delivery month, until the termination of trading in such contract.
>
> Where the first day of a contract's delivery month is a Tuesday, a Wednesday, a Thursday, or a Friday, the minimum price fluctuation of such contract shall be 0.0025 Index points, equal to $10.4175 per contract, as of the Trading Day immediately following the last Sunday of the month preceding such contract's delivery month, until the termination of trading in such contract.

46102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

46102.E. Special Price Fluctuation Limits
At the commencement of each trading day, the contract shall be subject to special price fluctuation limits as set forth in Rule 589 and in the Special Price Fluctuation Limits Table in the Interpretations & Special Notices Section of Chapter 5.

46102.F. [Reserved]

46102.G. Termination of Trading
Trading in an expiring contract shall terminate at the close of trading on the last Business Day of such contract's delivery month.

46102.H. [Reserved]

46103. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

46103.A. Final Settlement Price
The final settlement price for an expiring contract shall be calculated by the Exchange on the day on which the FRBNY publishes the SOFR value for the last day of such contract's delivery month.

The SOFR value for the last day of such delivery month shall be as first published by the FRBNY.

The final settlement price shall be 100 minus the arithmetic average of daily SOFR values during the contract delivery month. For any day during such delivery month for which the FRBNY does not publish a SOFR value (*eg*, a weekend day, a US government securities market holiday), the SOFR value assigned to such day shall be the SOFR value for the last preceding day for which a SOFR value was published.

Such arithmetic average value shall be rounded to the nearest 1/1,000th of one percent per annum, *ie*, the nearest 1/10th of one interest rate basis point per annum, or 0.001 Index points. A tie value, *ie*, any such arithmetic average value ending in 0.0005, shall be rounded up.

> *Example*: An arithmetic average value of 2.5915 percent per annum would be rounded up to 2.592 percent per annum, and then subtracted from 100.000 to determine a contract final settlement price of 97.408 Index points.

46103.B. Final Settlement
Clearing members holding open positions in a contract at the time of termination of trading in such contract shall make payment to or receive payment from the Clearing House in accordance with normal variation performance bond procedures based on a settlement price equal to the final settlement price.

46104.-35. [RESERVED]

(End Chapter 461)

<u>Appendix C</u>

CME Rulebook Chapter 5
Interpretations and Special Notices Relating to Chapter 5 –
Position Limit, Position Accountability, and Reportable Level Table

(attached under separate cover)

Appendix D

CME Rulebook Chapter 5
Rule 588.H. (“Globex Non-Reviewable Trading Ranges”) Table

(Additions are underlined.)

Outright					Spreads	
Instrument Name	Globex Symbol	Globex Non-Reviewable Range (NRR)	NRR: Globex Format	NRR: Ticks	NRR: Globex Format	NRR: Minimum Outright Ticks
Three-Month SOFR Futures – Nearby Months	SR3	2.5 basis points	2.5	10	Each leg evaluated as an outright	
Three-Month SOFR Futures – All Others	SR3	2.5 basis points	2.5	5	Each leg evaluated as an outright	
One-Month SOFR Futures – Nearby Months	SR1	2.5 basis points	2.5	10	Each leg evaluated as an outright	
One-Month SOFR Futures – All Others	SR1	2.5 basis points	2.5	5	Each leg evaluated as an outright	

Appendix E

CME Rulebook Chapter 5
Interpretations and Special Notices Relating to Chapter 5 – Special Price Fluctuation Limits and Daily Price Limits Table

(Additions are underlined.)

Extended Trading Hours (ETH) (17:00-7:20 Central Time)

Product	Rulebook Chapter	Commodity Coce	Primary/ Associated	Associated With	Base in Real Economic Value	Level 1	Level 2	Level 3	Level 4	Level 5
Three-Month SOFR Futures	460	SR3	Primary	Primary	$1,250	50.00	100.00	150.00	200.00	No Limit
One-Month SOFR Futures	461	SR1	Primary	Primary	$2,083.5	50.00	100.00	150.00	200.00	No Limit

Regular Trading Hours (RTH) (7:20-17:00 Central Time)

Product	Rulebook Chapter	Commodity Coce	Primary/ Associated	Associated With	Base in Real Economic Value	Level 1	Level 2	Level 3	Level 4	Level 5
Three-Month SOFR Futures	460	SR3	Primary	Primary	$3,750	150.00	200.00	250.00	300.00	No Limit
One-Month SOFR Futures	461	SR1	Primary	Primary	$6,250.5	150.00	200.00	250.00	300.00	No Limit

Appendix F

Exchange Fees per Side per Contract for CME Three-Month SOFR Futures and CME One-Month SOFR Futures

<table>
<tr><th>Membership Type</th><th>Venue/Transaction Type</th><th>Front Months</th><th>Back Months</th></tr>
<tr><td rowspan="3">Individual Members
Clearing Equity Member Firms
Rule 106.J Equity Member Firms & Rule 106.J Qualified Subsidiaries
Rule 106.I Member Firms & Rule 106.I Qualified Affiliates
Rule 106.S Member Approved Funds</td><td>CME Globex - Outrights</td><td rowspan="2">$0.19</td><td rowspan="2">$0.14</td></tr>
<tr><td>CME Globex - Spreads</td></tr>
<tr><td>EFP|EFR|Block</td><td>$0.29</td><td>$0.24</td></tr>
<tr><td rowspan="3">Rule 106.D Lessees
Rule 106.F Employees</td><td>CME Globex - Outrights</td><td rowspan="2">$0.37</td><td rowspan="2">$0.32</td></tr>
<tr><td>CME Globex - Spreads</td></tr>
<tr><td>EFP|EFR|Block</td><td>$0.50</td><td>$0.45</td></tr>
<tr><td rowspan="3">Rule 106.R Electronic Corporate Member
(For other than CME Globex|EFP|EFR|Block - See Non-Members)</td><td>CME Globex - Outrights</td><td rowspan="2">$0.49</td><td rowspan="2">$0.44</td></tr>
<tr><td>CME Globex - Spreads</td></tr>
<tr><td>EFP|EFR|Block</td><td>$0.90</td><td>$0.85</td></tr>
<tr><td rowspan="3">Rule 106.H and 106.N Firms
Clearing Non-Equity Member Firms</td><td>CME Globex - Outrights</td><td rowspan="2">$0.49</td><td rowspan="2">$0.44</td></tr>
<tr><td>CME Globex - Spreads</td></tr>
<tr><td>EFP|EFR|Block</td><td>$0.69</td><td>$0.64</td></tr>
<tr><td rowspan="3">International Incentive Program (IIP) Participants
International Volume Incentive Program (IVIP) Participants</td><td>CME Globex - Outrights</td><td rowspan="2" colspan="2">$0.50</td></tr>
<tr><td>CME Globex - Spreads</td></tr>
<tr><td>EFP|EFR|Block</td><td colspan="2">$0.66</td></tr>
<tr><td rowspan="3">Central Bank Incentive Program (CBIP) Participants
Emerging Markets Bank Incentive Program (EMBIP) Participants
Latin American Fund Manager Incentive Program (FMIP) Participants
(For other than CME Globex|EFP|EFR|Block - See Non-Members)</td><td>CME Globex - Outrights</td><td rowspan="2" colspan="2">$0.50</td></tr>
<tr><td>CME Globex - Spreads</td></tr>
<tr><td>EFP|EFR|Block</td><td colspan="2">$0.90</td></tr>
<tr><td rowspan="2">Members Trading Outside of Division
(For other than CME Globex During ETH - See Non-Members)</td><td>CME Globex - During ETH - Outrights</td><td rowspan="2">$0.80</td><td rowspan="2">$0.75</td></tr>
<tr><td>CME Globex - During ETH - Spreads</td></tr>
<tr><td rowspan="4">Non-Members</td><td>CME Globex - Outrights</td><td rowspan="2">$1.25</td><td rowspan="2">$0.95</td></tr>
<tr><td>CME Globex - Spreads</td></tr>
<tr><td>CME Globex - Bundles</td><td colspan="2">$0.80</td></tr>
<tr><td>EFP|EFR|Block</td><td>$1.35</td><td>$1.05</td></tr>
</table>

Processing Fees	Fee
106.D Lessee/106.H Brokerage	$0.13
106.F Employee Brokerage	$0.13
Floor / "New" Brokerage	$0.04
Position Adjustment/Position Transfer	$0.10
Give-Up Surcharge	$0.05
Facilitation Fee	$0.40