SUBMISSION COVER SHEET						
IMPORTANT: Check box if Confidential Treatment is requested						
Registered Entity Identifier Code (optional): <u>24-270</u>						
Organization: Chicago Mercantile Exchange Inc. ("CME")						
Filing as a:	SDR					
Please note - only ONE choice allowed.						
Filing Date: <u>08/07/24</u> Filing Description: <u>Initial Listing of the Soot Total Return Index (SOFR) Futures Contract</u>	he Adjusted Interest Rate S&P					
500 Total Return Index (50TR) Futures contract						
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	t 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					
Official Product Name: See filing.						
Product Terms and Conditions (product related Rules and F	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:						



August 7, 2024

VIA ELECTRONIC PORTAL

Mr. Christopher J. Kirkpatrick Office of the Secretariat Commodity Futures Trading Commission Three Lafayette Centre 1155 21st Street, N.W. Washington, D.C. 20581

Re: CFTC Regulation 40.2(a) Certification. Initial Listing of the Adjusted Interest

Rate S&P 500 Total Return Index (SOFR) Futures Contract.

CME Submission No. 24-270

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. ("CME" or "Exchange") is certifying to the Commodity Futures Trading Commission ("CFTC" or "Commission") the initial listing of the Adjusted Interest Rate S&P 500 Total Return Index (SOFR) Futures contract (the "Contract") for trading on the CME Globex electronic trading platform ("CME Globex") and for submission for clearing via CME ClearPort effective on Sunday, August 25, 2024, for first trade date Monday, August 26, 2024.

Contract Tit	le	Rulebook Chapter	Commodity Code	BTIC Code
Adjusted Inte	erest Rate S&P 500 Total Return Index (SOFR) Futures	357C	ASPR	ASPT

The Contract has three components; an equity index based on the S&P 500 Total Return ("SPTR") ("Index"), a daily Benchmark financing component based on the Secured Overnight Financing Rate (SOFR) and a financing spread adjustment component.

Section 1 – Contract Specifications

Contract Title	Adjusted Interest Rate S&P 500 Total Return Index (SOFR) Futures
Rulebook Chapter	CME 357C
Commodity Code	ASPR – Tradable as BTIC only except for EFRP
BTIC Code	ASPT
Underlying Index	S&P 500 Total Return Index (SPTR)
Reference Rate	Secured Overnight Financing Rate (SOFR)
Trading Unit	\$25 x Adjusted Interest Rate S&P 500 Total Return Index (SOFR) Futures
Trading and Clearing Hours	ASPR: CME ClearPort: Sunday 6:00 p.m Friday 6:45 p.m. Eastern Time (ET) with no reporting Monday – Thursday 6:45 p.m 7:00 p.m. ET ASPT: CME Globex Pre-Open: Sunday 5:00 p.m. ET. Monday – Thursday 5:45 p.m. ET CME Globex: Sunday - Friday 6:00 p.m 4:00 p.m. ET CME ClearPort: Sunday – Friday 6:00 p.m. – 4:00 p.m. ET. BTICs for the following trading day can be submitted after 7:00 p.m. ET
Listing Schedule	8 consecutive December contract months
Initial Listing Schedule	December 2026, December 2027, December 2028, December 2029, December 2030, December 2031, December 2032, December 2033
Termination of Trading	ASPR: Trading terminates on the 3rd Friday of the contract month ASPT: Trading terminates on the business day prior to 3rd Friday of the contract month
Price Basis and Minimum Price Increment	ASPR: Prices are quoted and traded in Index points. Minimum price increment: 0.01 Index points. The resultant cleared AIR TRF future price will be rounded to 2 decimals. ASPT: Prices are quoted and traded in Basis points. Minimum price increment: 0.50 Basis points
Settlement Method	Financially Settled
Settlement Procedures	Daily settlement price of contract shall be determined based on the following formula: $ = SPTR_t - AF_t + FSA_t $ $ = SPTR_t - AF_t + SPTR_t \tau_t s_t $
	FSA_t : Financing Spread Adjustment as defined by $FSA_t = SPTR_t \tau_t s_t$;
	$SPTR_t$: S&P 500 total return index close price, index ticker SPTR;
	s_t : TRF traded spread element in basis points, AF_t : Accrued financing, t_t : time to expiry, t : valuation time. where the Spread Settle s_t or the day shall be determined based on market activities (quotes, traded price) or prior day settle if no market activities, and a_t is the sum of accrued daily overnight financing until settlement. Final settlement price shall be determined based on the following formula:
	$= SPTR_T^{SOQ} - AF_T$
Block Trade Minimum Threshold / Reporting Window	ASPT: 250 contracts / subject to a 15-minute reporting window
Position Limits / Reportability Thresholds	Position Reportability: 25 contracts All-Month Position Limit: 300,000 contracts
CME Globex Matching Algorithm	F: First In, First Out (FIFO)

Section 2 – – Underlying Indexes

Adjusted Interest Rate Total Index Futures ("AIR TRF")

For index futures, e.g., E-mini S&P 500 index futures, the price of the future reflects two components: (i) the current index level, and (ii) the applicable market interest rate, or financing rate, for the period through the expiration of the index futures.

Participants trading in AIR TRF commit to a fixed financing rate at the onset of the trade. Any subsequent changes to the interest rate environment, however, would also impact the performance of the position. For example, subsequent increases to the applicable interest rate would cause the simple index futures to reprice higher. This repricing will impact AIR TRF Futures of longer duration more significantly than shorter duration contracts.

The Contract will deliver total equity return exposure enhanced with a built-in floating interest rate component based on SOFR to reflect financing costs associated with a total return and mitigate valuation changes due to prevailing interest rates by introducing an explicit financing component.

Valuation of the Contract is based on three components: an equity index; a benchmark financing amount which accrues daily; and a financing spread adjustment.

 $AIR\ TRF = (Equity\ Index - Accrued\ Financing\) + Financing\ Spread\ Adjustment$

- The Equity Index component an agreement between two (2) counterparties to exchange the value derived from equity performance. The equity index price of an AIR TRF is the official index daily close of the S&P 500 Total Return ("SPTR") ("Index"), as transacted via Basis Trade at Index Close ("BTIC"). The only exception is trading the futures contract via an Exchange for Related Position ("EFRP"), where the future price level is specified directly.
- 2. **Accrued Financing component** the sum of the daily accrued financing (*AF*). The financing amount is accrued daily based upon the benchmark reference rate (i.e., SOFR) and the sum is incorporated into the daily settlement of the product.

Since this *AF* term is determined by the daily addition of the overnight financing cost of the equity exposure, the total accumulation from the day the position is entered to the day the position is offset or expires represents the total realized overnight financing cost based upon the benchmark reference rate (SOFR). The futures price calculation dictates that the long position holder conveys this total realized financing cost to the short position holder.

Similar to the mechanism available for the Bloomberg Commodity Index Futures contract listed for trading and clearing on The Board of Trade of the City of Chicago, Inc. ("CBOT"), the Contract features a daily cash pass-through from long to short position holders. The implementation in the AIR TRF is an improvement on such mechanism, with an adjustment to the price of the futures. This approach precludes the need for additional back-office book entry for the transfer as it is accomplished via CME Clearing's regular exchange of settlement variation.

3. Financing Spread Adjustment – when trading the AIR TRF, counterparties will agree to a spread +/-to the reference rate (the "TRF Spread") for the remaining maturity of the product. This Financing Spread Adjustment will also scale with remaining time to maturity in absolute term but will be likely much less variable than the longer-term financing rate since most of the financing rate changes come in via the daily overnight benchmark reference rate component.

AIR TRF Valuation

The calculation methodology of the Contract is the same methodology as CME's existing AIR TRF instruments - the sole difference is the use of SOFR as the rate index for the Contract instead of EFFR, which is used for the existing AIR TRF instruments.

The quoting convention of BTIC is an agreed basis point spread to the SOFR. The Contract is tradeable exclusively via BTIC transaction. Participants execute a trade at a basis to the closing index value. The (absolute) price of the transaction will be determined by the Exchange following the conclusion of spot market trading on the day using the closing index value of the index.

Unlike existing BTIC functionality, where the basis price is quoted and traded in index points, the Contract's basis will be quoted in basis point per annum of interest rate add-on or discount. The Exchange, when converting the BTIC transaction into the trade of the underlying futures trade will take into consideration the remaining maturity of the Contract..

Once BTIC is executed it will be converted into an AIR TRF price by the Exchange. The resulting cleared price of the future is computational and occurs on a trade-by-trade basis.

The price of AIR TRF for the Contract is defined as:

Future
$$Price_t = (Equity\ Index - Accrued\ Financing) + Financing\ Spread\ Adjustment$$

$$= (Index_t - AF_t) + FSA_t$$

$$= (Index_t - AF_t) + Index_t \times \tau_t \times s_t$$

Where:

- t: valuation time;
- Index_t: Total Return index close price. It is the Gross Total Return index.
- AF_t : Accrued daily overnight financing at time t defined by $AF_t = AF_{t-1} + DF_t$;
- DF_t : Daily financing at time t as defined by $DF_t = Index_{t-1} \times SOFR_{t-1} \times \tau_t^{FD}$;
- SOFR: The overnight financing rate is determined as the Secured Overnight Financing Rate (SOFR)
- FSA_t : Financing spread adjustment as defined by $FSA_t = Index \times \tau_t \times s_t$;
- s_t : TRF spread price;
- T: Expiration date of the future;
- τ_t^{FD} : annualized financing days as defined by $\tau_t^{FD} = [(t)+1 \text{ settlement days}] [(t-1)+1 \text{ settlement days}]/360.$
- τ_t : time to expiry defined by $\tau_t = [(T + 1 \text{ settlement days}) (t + 1 \text{ settlement days})] / 360.$

The overnight financing rate is determined as the SOFR applicable to each day. Accrued financing (AF_t) is equal to the sum of the daily overnight financing (DF_t) since the future's inception (t0) until the valuation time (t): $AF_t = \sum_{i=t_0}^t Index_{i-1} \times SOFR_{i-1} \times \tau_i^{FD}$.

The Depository Trust and Clearing Company ("DTCC") business days calendar is used as the 'settlement days' calendar to calculate the time to expiry (τ_t) and the annualized financing days (τ_t^{FD}) .

CME Clearing will publish the Accrued Financing (AF) value every business day to market participants for all the listed contract months.

Final Settlement of the AIR TRF:

The final settlement of the AIR TRF is the Index Special Opening Quotation ("SOQ") price minus the sum of accrued daily overnight financing until expiry. The term FSA_T at final expiration is null because at expiration of the future τ_T is zero.

Future
$$Price_{t=T}^{final\ settlement} = Index_T^{SOQ} - AF_T$$

The expiry level of Index on final settlement will be determined by the SOQ of the index together with the sum of the accrued financing up to and including the final settlement date. The closing index value of the cash index, calculated based on the closing value of the constituents in the constituents in the primary market, are based on competitive trading.

Secured Overnight Financing Rate Data

SOFR¹ is a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities. SOFR includes all trades in the Broad General Collateral Rate plus bilateral Treasury repurchase agreement ("repo") transactions cleared through the Delivery-versus-Payment ("DVP") service offered by the Fixed Income Clearing Corporation ("FICC"), which is filtered to remove a portion of transactions considered "specials."

Note that specials are repos for specific-issue collateral, which take place at cash-lending rates below those for general collateral repos because cash providers are willing to accept a lesser return on their cash in order to obtain a particular security.

Administration and Oversight of SOFR

SOFR is calculated as a volume-weighted median of transaction-level tri-party repo data collected from the Bank of New York Mellon as well as GCF Repo transaction data and data on bilateral Treasury repo transactions cleared through FICC's DVP service, which are obtained from the U.S. Department of the Treasury's Office of Financial Research ("OFR"). Each business day, the New York Fed publishes the SOFR on the Federal Reserve Bank of New York website at approximately 8:00 a.m. Eastern Time ("ET").

Exhibits 1 and 2 provide historical SOFR and Volume Data Effective Federal Funds Rate ("EFFR") and Volume Data. During the period between May 2020 and May 2024 the average ratio of volumes in SOFR over EEFR has been at fourteen (14) times and average difference of three (3) basis points.

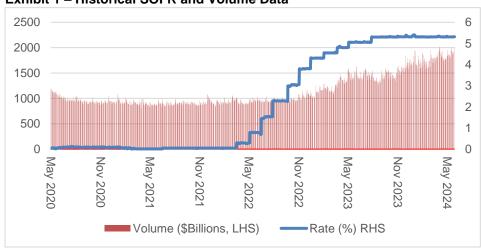


Exhibit 1 - Historical SOFR and Volume Data

Source: Federal Reserve Bank of New York

¹ https://www.newyorkfed.org/markets/reference-rates/additional-information-about-reference-rates#tgcr_bgcr_sofr_calculation_methodology

Index Definition, Administration and Governance

Index Definition

The S&P 500 Index² (the "Index") is administered, calculated, and published by S&P Dow Jones Indices LLC ("S&P DJI"), a part of S&P Global Inc. Created in 1957, it was the first US market-capitalization-weighted stock price index. The index is rebalanced after close of trading in US equity markets on the third Friday of every March Quarterly month. Each index constituent firm must meet the following criteria at the time of such rebalancing³:

Listing Universe US company
Market Capitalization At least \$14.5 bn

Tradable Supply At least 50% of shares outstanding must be available for trading.

Financial Viability Positive as-reported earnings, both for the most recent quarter and for the

most recent four quarters in aggregate

Liquidity and Price Highly tradable common stock, with active and deep markets.

As of April 3, 2024, the index comprises 503 constituent firms, with aggregate market capitalization of \$43.7 trillion. ⁴ The following statistics describe the distribution of index constituents in terms of their individual market capitalizations (in \$ bn):⁵

 Largest
 3,124.12

 Average
 86.90

 Median
 33.49

 Smallest
 3.04

The largest single constituent signifies 7.15% of index weight. The largest 10 constituents represent 32.57% of index weight.

The formula for calculation of the S&P 500 index is:6

$$IndexLevel = \frac{\left(\sum_{i} P_{i}(t) * Q_{i}(t)\right)}{Divisor}$$

where

is the running variable that denotes each constituent stock. Currently, i = 1, 2, ... 503

 $P_i(t)$ is price per share of stock i at time t.

 $Q_i(t)$ is the number of shares of stock i that enters into calculation of the index value for time t.

² All statistics referenced herein are drawn from the S&P 500[®] Factsheet as of June 28, 2024, S&P Dow Jones Indices, available via 'Factsheets' at: https://www.spglobal.com/spdji/en/index-family/equity/us-equity/us-market-cap/#overview

³ The following paragraphs on index methodology are adapted from S&P U.S. Indices Methodology, S&P Dow Jones Indices, October 2023 at: https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-us-indices.pdf.

⁴ https://www.spglobal.com/spdji/en/landing/topic/gics/

⁵ Statistics referenced below are sourced from SPICE with data as of April 3, 2024

⁶ The following paragraphs on index methodology are adapted from S&P U.S. Indices Methodology, S&P Dow Jones Indices, May 2020, available via 'Methodology' at: https://www.spglobal.com/spdji/en/index-family/equity/us-equity/us-market-cap/#overview

The numerator in the expression on the right-hand side is the price of each index constituent stock multiplied by the number of shares used in the index calculation, summed across all index constituents.

The formula may be viewed as a modified Laspeyres price index. A Laspeyres price index would use quantities – equity share counts in this case – for an arbitrarily chosen base period (time 0) to calculate a weighted average price for its index constituents. Thus, for prices as of time t, indexed on the basis of prices as of time 0 (such that 0 < t), the Laspeyres index would be:

$$IndexLevel_t = \frac{\left(\sum_i P_i(t) * Q_i(0)\right)}{\left(\sum_i P_i(0) * Q_i(0)\right)}$$

In the modification that implements the S&P 500 index, the quantity measure in the numerator, $Q_i(0)$, is replaced by $Q_i(t)$. Thus, the S&P 500 index represents the aggregate of current market valuations of its constituent firms, indexed on the basis of the aggregate of market values of constituent stocks at time 0:

$$IndexLevel_t = \frac{\left(\sum_i P_i(t) * Q_i(t)\right)}{\left(\sum_i P_i(0) * Q_i(0)\right)}$$

The term in the denominator is replaced by the *Divisor* shown above, which represents the initial aggregate of market values and which sets the index normalizing value. In its role as the index normalizing factor, the *Divisor* incorporates a variety of adjustments, including additions of companies to the index, deletions of companies from the index, reduction of an index constituent's outstanding shares to account for floating supply (i.e., exclusion of closely held shares), exclusion of an index constituent's shares that are subject to foreign ownership restrictions, and adjustments due to corporate actions such as mergers or spin-offs.

Index Definition: S&P 500 Total Return index7

The total return construction differs from the price index and builds the index from the price index and daily total dividend returns. The first step is to calculate the total dividend paid on a given day and convert this figure into index points (of the price index):

$$Total Daily Dividend = \sum_{i} Dividend_{i} * Shares_{i}$$

Where Dividend is the dividend per share paid for stock i and Shares are the shares. This is done for each trading day. $Dividend_i$ is generally zero except for four times a year when it goes ex-dividend for the quarterly dividend payment. Some stocks do not pay a dividend and Dividend is always zero. TotalDailyDividend is measured in dollars. This is converted to index points by dividing by the divisor for the underlying price index:

$$IndexDividend = \frac{TotalDailyDividend}{Divisor}$$

The next step is to apply the usual definition of a total return from a financial instrument to the price index:

$$Total\ Return = \left(\frac{P_t + D_t}{P_{t-1}}\right) - 1$$

$$DTR_t = \left(\frac{IndexLevel_t + IndexDividend_t}{IndexLevel_{t-1}} - 1\right)$$

Where $Total\ Return$ and the daily total return for the index, DTR_t , is stated as a decimal. The DTR_t is used to update the total return index from one day to the next:

Adapted from https://www.spglobal.com/spdji/en/documents/methodologies/methodology-index-math.pdf, page 21
20 S Wacker Dr Chicago, IL 60606 T 312 466 7478 tim.elliott@cmegroup.com cmegroup.com

$TotalReturnIndex_t = TotalReturnIndex_{t-1} * (1 + DTR_t)$

The final settlement price of the Contract shall be equal to a SOQ⁸ of the S&P 500 Total Return Index minus the Accrued Financing of the contract. Such SOQ shall be determined on the third Friday of such delivery month ("Expiration Date") and shall be based on opening prices of the component stocks of the Index, and where the Accrued Financing will be calculated up to and inclusive of the Daily Financing for the Expiration Date of the contract.

Index Administration and Governance

Administration and Oversight of S&P 500 Index

S&P DJI was formed in June 2012 as a joint venture between S&P Indices and Dow Jones Indexes. Headquartered in New York, S&P DJI employs over 400 persons operating out of 20 offices worldwide.

In July 2019, S&P DJI issued its latest Statement of Adherence to the recommendations made by the International Organization of Securities Commissions ("IOSCO") in its Principles for Financial Benchmarks Final Report ("IOSCO Principles"). In this connection, S&P DJI engaged Ernst & Young LLP "to perform a reasonable assurance examination of S&P DJI's assertion of their [continued support of and] adherence with the IOSCO Principles." S&P DJI's overall governance and control framework incorporates multiple components that, together, protect the integrity and quality of its Benchmarks. These include: ⁹

SPDJI's overall governance and control framework incorporates multiple components that, together, protect the integrity and quality of its Benchmarks. These include: 10

- a) A corporate structure that isolates the SPDJI Benchmark business into a single corporate entity.
- b) An organizational/operating structure that separates commercial functions from operational and analytical functions into distinct reporting lines.
- c) An independent Benchmark governance body (including Index Committees) with documented policies and procedures.
- d) A control framework to ensure a sound process for developing, calculating and distributing Benchmarks.
- e) An oversight function that monitors and enforces, among other things, S&P DJI's compliance with its various conflicts of interest policies.
- f) Processes with designated roles and teams to work with and oversee the various third parties involved in the Benchmark determination process.

Section 3 – Deliverable Supply Analysis

S&P 500 Index Evaluation

The Commodity Exchange Act ("CEA" or "Act") requires that security futures products, defined to comprise single stock futures and futures on narrow-based security indexes, shall be subject to the joint jurisdiction of the CFTC and the Securities Exchange Commission ("SEC"). Futures products for which the underlying references are broad-based security indexes remain under the sole jurisdiction of the CFTC.

Section 1a(25) of the Act defines a narrow-based index to be an index:

⁸ The discussion of the Special Opening Quotation is adapted from Equity Indices Policies & Practices Methodology, S&P Dow Jones Indices, June 2020.

⁹ Management Statement of Adherence with the IOSCO Principles for Financial Benchmarks available at, https://www.spqlobal.com/spdii/ep/documents/legal/spdii-josco-report-2023.pdf

https://www.spglobal.com/spdji/en/documents/legal/spdji-iosco-report-2023.pdf

10 Management Statement of Adherence with the IOSCO Principles for Financial Benchmarks for the period June 1, 2022, through May 31, 2023, Section 1, page 3, S&P Dow Jones Indices, available at https://www.spglobal.com/spdji/en/governance/methodologies/
20 S Wacker Dr Chicago, IL 60606 T 312 466 7478 tim.elliott@cmegroup.com cmegroup.com

- (i) which has nine (9) or fewer component securities; or
- (ii) in which any component security comprises more than 30 percent of the index's weighting; or
- (iii) in which the 5 highest weighted component securities in the aggregate represent more than 60 percent of the index's weighting; or
- (iv) in which the lowest weighted component securities comprising, in the aggregate, 25 percent of the index's weighting have an aggregate dollar value of average daily trading volume of less than USD 50,000,000 (or in the case of an index with 15 or more component securities, less than USD 30,000,000).

The S&P 500 Index and therefore the S&P 500 Total Return Index as it is a derivation of the S&P 500 index considered herein, fails to meet any criterion for consideration as a narrow-based index. The Exchange has determined, therefore, that CME's Adjusted Interest Rate S&P 500 Total Return Index (SOFR) Futures contract shall be listed for trading and clearing under the sole jurisdiction of the CFTC.

In respect of criterion (i), as of 3 June 2024, the number of Index components for the S&P 500 index was 505 securities, which exceeds the 9-security minimum threshold, and currently there are 503 securities.

In respect of criteria (ii), (iii), and (iv), Exhibit 3 displays summary statistics of daily data for the 6-month interval December 1, 2023 through June 3, 2024. Results are based on the S&P 500 Index, which has identical components for the S&P 500 Total Return Index.

Exhibit 3: CEA Section 1a(25) Narrow-Based Index Tests for the S&P 500 Index

Quantiles of empirical distributions of daily measures of index characteristics, December 1, 2024 to June 3, 2024.

	Criterion (ii)	Criterion (iii)	Criterion (iv)
	Index weight of largest index component (pct)	Aggregate index weight of largest 5 index components (pct)	Trading volume of smallest index components aggregating to 25 pct of index weight (\$ billons/day)
Maximum	7.41	26.001	185.9
75 Pctl	7.25	24.484	92.3
Median	7.15	24.195	87.4
25 Pctl	7.03	23.868	81.2
Minimum	6.85	22.108	69.4

Data Source: Bloomberg, SPDJI

For criterion (ii), the share of Index weight occupied by the largest component stock, test results appear in the left-hand panel of Exhibit 3. For each index, the entire empirical distribution of daily outcomes resides well below the 30 percent threshold that would signify a narrow-based index. At no point does any index's largest component stock account for more than 8 percent of index weight.

Similar results obtain for criterion (iii), shown in the middle panel of Exhibit 3. In each case, the distribution of aggregate weight of the index's largest five component stocks lie well below 60 percent threshold that would characterize a narrow-based index. In no instance do the largest five members of the index account for more than 26.1 percent of index weight.

Summary statistics for distributions of trading volume, shown in Exhibit 3's right-hand panel, demonstrate that the Index is not narrow-based in the sense of criterion (iv). The test procedure is to rank each of the Index's component stocks from smallest market capitalization to largest, then to identify components with smallest market capitalizations in sufficient number to account for 25 percent of Index weight. If the representative aggregate daily trading volume of such identified index components were less than USD 30 million, then the Index would be considered narrow-based.

During the 6-month sample analyzed here, daily values of trading volume in the Index's bottom-quartile constituent stocks reside in the neighborhood \$81 billion per day. The minimum observed daily trading volume is \$61 billion, which well exceeds the test threshold.

Block Trading Standards

Standards for block trading in the Contract shall be comparable to established standards that apply to other equity index futures products that the Exchange now lists for trading. The minimum size threshold for a Basis Trade at Index Close ("BTIC") block transaction for a given delivery month shall be 250 contracts.

Section 4 - Compliance with Core Principles

The Exchange has reviewed the designated contract market core principles ("Core Principles") as set forth in the Act and has identified that the Contract may bear upon the following Core Principles:

Core Principle 2 - Compliance with Rules

Trading in the Contract shall be subject to CME Rulebook Chapter 4, which includes prohibitions against fraudulent, noncompetitive, unfair, and abusive practices. Additionally, trading in this Contract shall be subject to the Exchange's trade practice rules. Trading activity in this Contract shall be subject to 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

The underlying reference index of the Contract is sufficiently broad in definition and scope, and adequately large in terms of market capitalization and level of trading activity of Index constituents, to satisfy the requirement that such futures contract is not readily susceptible to attempted cornering, manipulation, crowding, or exertion of undue influence upon final settlements of an expiring contract month.

As of June 3, 2024, the S&P 500 Index and the S&P 500 Total Return Index each comprised of the same 503 component stocks with approximate aggregate market capitalization of \$49.3 trillion.¹¹

In conjunction with using the S&P 500 Total Return Index, the calculation will adjust for accrued interest using SOFR. Standards regarding susceptibility to manipulation of the Contract Whether the Adjusted Interest Rate S&P 500 Total Return Index Future is susceptible to manipulation rests partially on the integrity of SOFR.

The final settlement price for an expiring contract month shall be based upon transaction prices or actionable price indications made competitively and transparently on organized primary listing exchanges, under the regulation of the SEC. Specifically, the final settlement price of any expiring contract month is an SOQ of the corresponding Index computed by the Index administrator on the basis of market order auctions for Index component stocks conducted on U.S. primary listing exchanges.

Core Principle 4 – Prevention of Market Disruption

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

The Contract shall be subject to price limits that are harmonized with the U.S. equity market-wide limit-up-limit-down mechanism set forth in the "Plan to Address Extraordinary Market Volatility Submitted to the

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¹¹ SPDJI Indices

Securities and Exchange Commission Pursuant to Rule 608 of Regulation NMS under the Securities Exchange Act of 1934"¹² and implemented under, e.g., New York Stock Exchange Rule 80B for Trading Halts Due to Extraordinary Volatility.

Core Principle 5 - Position Limits or Accountability

When considered collectively with positions in the E-mini Standard and Poor's 500 Stock Price Index Futures¹³ (code: ES) contracts for the purpose of position limits, the Contract shall be subject to 300,000 net long or short ES across all contract months. For purpose of position limits, 1 long ASPR equates to 1 long ES. There shall be a Position Reporting Level of 25 contracts. Both requirements are comparable to standards that apply to similar U.S. equity index futures products available for trading and clearing by the Exchange.

To place the prescribed Position Limits in context, consider market conditions on June 3, 2024. With the closing value of the S&P 500 Total Return Index at 11508.89, the notional value of a hypothetical 300,000-contract limit position in AIR S&P 500 TRF (EFFR) would have been approximately \$86 billion without accounting for the accrued financing component (equal to (11,508.89 Index points) x (\$25 per Index point per contract) x (300,000 contracts)). This represents approximately 0.18% of the Index's closing market capitalization of \$49.3 trillion.

Core Principle 7 – Availability of General Information

The Exchange shall disseminate a Special Executive Report ("SER") that sets forth information regarding the Contract. In addition, the SER will be available on the Exchange's website.

Core Principle 8 – Daily Publication of Trading Information

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

Core Principle 9 – Execution of Transactions

The Contract shall be listed for trading on CME Globex, which provides for efficient, competitive, and open execution of transactions. Additionally, CME Globex affords the benefits of reliability and global connectivity. The applicable CME Globex non-reviewable trading ranges shall be as set forth in Appendix C.

Trading of AIR S&P 500 TRF (SOFR) shall be negotiated using the Basis Trade at Index Close (BTIC) convention.

Note that the BTIC convention is already used in other index futures at CME Group, namely E-mini S&P 500 Index Futures and others. It is available for competitive trading on CME Globex. The closing index value of the cash index, calculated based on the closing value of the constituents in the primary market, are also based on competitive trading.

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 Transactions

The Contract 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.

¹² Securities Exchange Act Release No 67091, 31 May 2012 (77 FR 33498, 6 June 2012), as amended from time to time (U.S. Securities and Exchange Commission, SRO Rulemaking, National Market System Plans, File 4-631).

¹³ https://www.cmegroup.com/rulebook/CME/IV/350/358/358.pdf

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 Contract.

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 Contract 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 this product are identified.

Core Principle 14 – Dispute Resolution

Disputes in respect of the Contract 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.

Appendix A provides CME Chapter 357C. Appendix B, under separate cover, provides the Position Limit, Position Accountability, and Reportable Level Table in blackline format. Appendix C provides CME Rule 588.H. ("Non-Reviewable Trading Ranges") Table in blackline format. Appendix D provides CME Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table in blackline format. Appendix E provides the relevant Exchange transaction fees.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange certifies that the Contract complies with the Act including all regulations thereunder. There were no substantive opposing views to this proposal.

Sincerely,

/s/ Timothy Elliott Managing Director and Chief Regulatory Counsel

Attachments:	Appendix A	CME Ruleboo	k Chapter 3570	C – Adjusted Intere	st Rate S&P 50	0 Total
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Return Index (SOFR) Futures

Position Limit, Position Accountability, and Reportable Level Table in Appendix B

Chapter 5 of the CME Rulebook (attached under separate cover)

Appendix C CME Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table

CME Rule 589. - Special Price Fluctuation Limits and Daily Price Limits Appendix D

Table

Appendix E **Exchange Fees**

Appendix A

CME Rulebook

Chapter 357C

Adjusted Interest Rate S&P 500 Total Return Index (SOFR) Futures

357C00. SCOPE OF CHAPTER

This chapter is limited in application to Adjusted Interest Rate S&P 500 Total Return Secured Overnight Financing Rate ("SOFR") Index futures ("AIR S&P 500 TRF (SOFR)" or "futures").

The AIR S&P 500 TRF (SOFR) valuation has three components; an equity index component, a daily Benchmark financing component and a financing spread adjustment component.

AIR S&P 500 TRF (SOFR) = (Equity Index – Accrued Financing) + Financing Spread Adjustment

In addition to this chapter, futures shall be subject to the general rules and regulations of the Exchange as applicable.

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

357C00.A. Market Decline

For the purposes of this chapter a Market Decline shall be as defined in New York Stock Exchange Rule 7.12 for Trading Halts Due to Extraordinary Volatility or in Nasdaq Stock Market Rule 4121 for Trading Halts Due to Extraordinary Volatility.

357C00.B. Primary Listing Exchange

For the purposes of this chapter a Primary Listing Exchange shall be as defined in the "Plan to Address Extraordinary Market Volatility Submitted to the Securities and Exchange Commission Pursuant to Rule 608 of Regulation NMS Under the Securities Exchange Act of 1934" approved 31 May 2012 by the U.S. Securities and Exchange Commission ("SEC"), as amended from time to time (SEC, SRO Rulemaking, National Market System Plans, File 4-631).

357C00.C. Regulatory Halt

For the purposes of this chapter a Regulatory Halt shall be as defined in the "Plan to Address Extraordinary Market Volatility Submitted to the Securities and Exchange Commission Pursuant to Rule 608 of Regulation NMS Under the Securities Exchange Act of 1934" approved 31 May 2012 by the SEC, as amended from time to time (SEC, SRO Rulemaking, National Market System Plans, File 4-631) and as implemented under New York Stock Exchange Rule 7.12 for Trading Halts Due to Extraordinary Volatility or under Nasdaq Stock Market Rule 4121 for Trading Halts Due to Extraordinary Volatility.

357C01. CONTRACT SPECIFICATIONS

The contract structure is subject to the following definitions:

- 1. Definitions
 - a. Equity Index shall mean S&P 500 Total Return Index ("SPTR Index", "SPTR" or "Index");
 - Index Close shall mean the official index closing value of the Equity Index for a particular trading day based on the closing price of the constituent stocks in the index as disseminated by the Index Administrator;
 - c. **Index Administrator** shall mean the Standard & Poor's Dow Jones Indices, who is responsible for the calculation and dissemination of the Equity Index;
 - d. **Benchmark Funding Reference Rate** shall mean the Secured Overnight Financing Rate (SOFR) published by the Federal Reserve Bank of New York on the current business day of the value on the previous business day, expressed on per annum basis;
 - e. **Cash Market Settlement Day** shall mean the settlement day of an equity trade corresponding to a trading day, as scheduled by the DTCC;
 - f. **Daily Financing Period** shall mean the length of time in years between the Cash Market Settlement Day of the previous business day and the Cash Market Settlement Day of the current day, using the ACT/360 day count convention;

- g. Time to Maturity shall mean the length of time between the Cash Market Settlement Day of the current day and the Cash Market Settlement Day of the day of final settlement price determination of the contract, expressed in years using the ACT/360 day count convention;
- h. Daily Financing Amount shall mean the following value:

Previous Business day's Index Close x Daily Financing Period x Benchmark Funding Reference Rate

- i. Accrued Financing shall mean cumulative value of the Daily Financing Amount since the listing of a contract. On the first day of trading, CME Clearing shall determine and publish the initial value of the Accrued Financing for the contract. Thereafter, on each business day, the Accrued Financing of the contract shall be determined by adding the current day's Daily Financing Amount to the Accrued Financing of the contract as of the previous business day;
- j. TRF Spread Price (or Total Return Futures Spread Price, or Financing Spread Price) shall mean an interest rate spread, expressed on per annum basis, above or below the Benchmark Funding Reference Rate;
- Absolute Price shall mean the price of the futures contract by converting the TRF Spread
 Price using the Pricing Formula with the appropriate Index Value, Time to Maturity, and TRF
 Spread Price as inputs;
- I. Financing Spread Adjustment shall mean the value determined by following formula:

Index Close (of Current Business Day) x TRF Spread Price x Time to Maturity

2. For purpose of this chapter, **Pricing Formula** shall mean the following formula:

Equity Index - Accrued Financing + Financing Spread Adjustment

3. For trades pursuant to 357C06. BTIC Transactions, the Exchange shall apply the Pricing Formula to trades consummated using TRF Spread Prices to determine the Absolute Price, subject to rounding to the nearest Price Increment. For trades pursuant to Exchanges For Related Positions, trade counterparties shall submit to CME Clearing the Absolute Price agreed upon by the counterparties.

357C02. TRADING SPECIFICATIONS

357C02.A. Trading Schedule

Futures contracts shall be scheduled for trading during such hours and for delivery in such months as may be determined by the Exchange, provided that there shall be no trading in futures contracts when trading is halted in the Primary Futures Contract Month for E-mini Standard and Poor's 500 Stock Price Index futures pursuant to Rule 35802.I.

357C02.B. Trading Unit

The unit of trading shall be \$25.00 times the Adjusted Interest Rate S&P 500 Total Return (SOFR) Futures.

357C02.C. Price Increments

The price for the AIR S&P 500 TRF (SOFR) shall be in index points. The minimum price fluctuation shall be 0.01 index points.

The quoting notation for the AIR S&P 500 TRF (SOFR) Spread will be expressed in basis points and shall be transacted via BTIC (rule 357C06). The minimum price fluctuation shall be 0.5 basis points.

357C02.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 file 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.

357C02.E. [Reserved] 357C02.F. [Reserved]

357C02.G. Termination of Trading

Trading in expiring futures shall terminate at the regularly scheduled start of trading on the Primary Listing Exchange on the Business Day scheduled for determination of the Final Settlement Price (Rule 35703.A.) for such futures.

If an unscheduled Market Holiday is declared on the day of Final Settlement Price determination (Rule 357<u>C</u>03.A), trading in the expiring futures shall terminate at the close of trading on the New York Stock Exchange on the immediately preceding Business Day.

357C02.H. [Reserved]

357C02.I. Price Limits and Trading Halts

There shall be no trading of AIR S&P 500 TRF (SOFR) when trading is restricted as set forth in Rule 35802.I.

357C03. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

357C03.A. Final Settlement Price

For a futures contract for a given delivery month, the Final Settlement Price shall be determined based using the Pricing Formula, with the special opening quotation of the S&P 500 Total Return Index (SPTR SOQ) in place of the Index Close. For the avoidance of doubt, the Final Settlement Price shall be

SPTR SOQ - Accrued Financing on Day of Final Settlement Price Determination

Note that Time to Maturity on the day of Final Settlement Price Determination shall be zero, and the Financing Spread Adjustment shall be zero.

Such special opening quotation (SOQ) shall be determined on the third Friday of such delivery month and shall be based on opening prices of the component stocks of the Index.

If the Index is not scheduled to be published on the third Friday of the contract delivery month, then such Final Settlement Price shall be scheduled for determination on the first preceding Business Day on which the Index is scheduled to be published.

If the Primary Listing Exchange for a component stock of the Index does not open on the day scheduled for determination of such Final Settlement Price, then for the purpose of calculating such special opening quotation price of the Index the price of such component stock shall be its opening price on the next following day on which its Primary Listing Exchange is open for trading.

If a component stock of the Index does not trade on the day scheduled for determination of such Final Settlement Price, and the Primary Listing Exchange for such stock is open for trading, then for the purpose of calculating such special opening quotation price of the Index the price of such stock shall be its last sale price, provided that the Exchange in its sole discretion may instruct that the price of such stock shall be its opening price on the next following day that it is traded on its Primary Listing Exchange.

If an unscheduled Market Holiday is declared on the day of final settlement price determination, the Final Settlement Price shall be the Official Index Closing Value published by the index publisher on the Business Day immediately preceding the original day of Final Settlement Price determination.

357C03.B. Final Settlement

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 357C02.G.) shall make payment to or receive payment from the Clearing House in accordance with normal variation margin procedures based on such expiring contract's Final Settlement Price (Rule 357C03.A.).

357C04. [RESERVED]

357C05. [RESERVED]

357C06. BASIS TRADE AT INDEX CLOSE ("BTIC") TRANSACTIONS

All BTIC transactions must be executed in accordance with the requirements of Rule 524.B.

357C06.A. BTIC Block Trade Requirements

BTIC block trades must be executed in accordance with the requirements of Rule 526.

For a BTIC or BTIC block trade executed on a given Trading Day on or before the scheduled close of the Primary Listing Exchange, the corresponding futures price shall be made by reference to the Index closing value for the current Trading Day.

For a BTIC or BTIC block trade executed after the scheduled close of the Primary Listing Exchange, the corresponding futures price shall be made by reference to the Index closing value for the next Trading Day.

357C06.B. BTIC Price Assignment Procedures

The price assignment procedures for BTIC transactions shall follow Rule 524.B.3.

357C06.C. BTIC Minimum Price Increments

The minimum price increment shall be 0.50 basis points, per contract, for any basis adjustment that is applied to an Index closing price to establish a BTIC transaction price.

357C06.D. Market Disruption Events

In the event of a market disruption in the Primary Listing Exchange, all pending and executed BTIC transactions in the corresponding futures contract shall be cancelled by the Exchange. Such disruption shall be declared by the Exchange in its sole discretion, and may include, without limitation, an unscheduled early close of the Primary Listing Exchange or a NYSE Rule 7.12 trading halt declared in response to a Level 3 (20%) decline in the S&P 500 Index that necessitates an early close of the Primary Listing Exchange.

357C06.E. [Reserved]

(End Chapter 357C)

INTERPRETATIONS & SPECIAL NOTICES RELATING TO CHAPTER 357C

1. Trading Specifications

Until such time as the Exchange shall enable outright trading in futures contracts made under these Rules, trading shall be permitted only where such futures contracts are traded through Basis Trade at Index Close transactions, pursuant to Rules 524.B. (Basis Trade at Index Close ("BTIC") Transactions) and Rules 35706. of this Chapter, provided that in any instance where such futures contracts are traded as the futures component of an EFRP transaction, pursuant to Rule 538. (Exchange for Related Positions), the price of such futures contracts may be made either in Index terms outright, pursuant to Rules 35702. of this Chapter, or in BTIC terms, pursuant to Rules 524.B. and Rules 35706. of this Chapter.

Trading in an expiring futures contract shall terminate at the scheduled close of the Primary Listing Exchange on the Exchange business day first preceding the day of Final Settlement Price determination for such futures contract.

DISCLAIMER

Standard & Poor's, a division of the McGraw-Hill Companies, Inc. ("S&P"), licenses the Exchange to use various S&P stock indices ("S&P Stock Indices") in connection with the trading of futures contracts and options on futures contracts based upon such indices. S&P shall have no liability for damages, claims, losses or expenses caused by any errors or delays in calculating or disseminating the S&P Stock Indices.

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Appendix B

CME Rulebook Chapter 5

("Trading Qualifications and Practices") Position Limit, Position Accountability, and Reportable Level Table

(attached under separate cover)

Appendix C

CME Rulebook

Chapter 5

("Trading Qualifications and Practices")

CME Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table

(additions <u>underlined</u>)

Equity Index		Outrights			Spreads	
	Globex Symbol	Globex Non- Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Minimum Ticks	NRR: Globex Format	NRR: Outright Minimum Ticks
BTIC on Adjusted Interest Rate S&P 500 Total Return Index (SOFR) Futures	<u>ASPT</u>	3 index points	<u>300</u>	<u>6</u>	<u>N/A</u>	<u>N/A</u>

Appendix D

CME Rulebook

Chapter 5

("Trading Qualifications and Practices")

CME Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table

additions underlined

Product	Rulebook Chapter	Commod ity Code	Primary/ Associated	Associate d With	Daily Price Limit	Dynamically Calculated
	Chapter	ity Coue	Associated	u with		
						Variant
						(Excluding
						Regular
						Trading Hours)
BTIC on Adjusted	357C	ASPT	Associated	ES	Daily Price Limit	
Interest Rate S&P					Table	
500 Total Return						
Index (SOFR)						
<u>Futures</u>						

Appendix E

Exchange Fees

			Fee	
Membership Type	Venue/Transaction Type	Futures*	Futures**	Futures***
Individual Members	Delivery	\$0.09		
Clearing Equity Member Firms Rule 106.J Equity Member Firms & Rule 106.J	CME Globex		\$3.90	\$7.80
Qualified Subsidiaries Rule 106.I Member Firms & Rule 106.I Qualified	EFP EFR BTIC	\$1.95		
Affiliates Rule 106.S Member Approved Funds	Block			
	Delivery		\$0.21	
Rule 106.D Lessees	CME Globex			
Rule 106.F Employees	EFP EFR BTIC	\$2.07	\$4.14	\$8.28
	Block			
Rule 106.R Electronic Corporate Member	CME Globex	\$2.25	\$4.50	\$9.00
(For other than CME Globex - See Non-Members)	CME Globex – BTIC	Ψ2.20		
	Delivery		\$0.39	
Rule 106.H and 106.N Firms	CME Globex			
Clearing Non-Equity Member Firms	EFP EFR BTIC	\$2.25	\$4.50	\$9.00
	Block			
International Incentive Program (IIP) Participants International Volume Incentive Program (IVIP)	CME Globex		\$4.60	\$9.20
Participants (For other than CME Globex - See Non-Members)	CME Globex – BTIC	\$2.30		
Latin American Fund Manager Incentive Program	CME Globex			
(FMIP) Participants (For other than CME Globex and where N/A - See Non-Members)	CME Globex – BTIC	\$2.30	\$4.60	\$9.20
	Delivery	\$0.35		
CBOE Members (For S&P Products Only; N/A For All Other	CME Globex			
Products - See Non-Members)	EFP EFR BTIC	\$2.25	\$4.50	\$9.00
	Block			

Members Trading Outside of Division (For other than Globex During ETH - See Non- Members)	CME Globex - During ETH Only	N/A		
	Delivery		\$0.40	
Non-Members (Including: CTA/Hedge Fund Incentive Program	CME Globex			
Participants)	EFP EFR BTIC	\$2.30	\$4.60	\$9.20
	Block			

Processing Fees	Fee
Position Adjustment/Position Transfer	\$0.10
Give-Up Surcharge	\$0.05
Facilitation Fee	\$0.40