SUBMISSION COVER SHEET

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

Registered Entity Identifier Code (optional): <u>20-280</u>

Organization: <u>Chicago Mercantile Exchange Inc. ("CME")</u>

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

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): <u>09/01/20</u> Filing Description: <u>Initial Listing of the Adjusted Interest Rate S&P 500 Total Return Index Futures Contract</u>

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

Official Product Name: <u>Adjusted Interest Rate S&P 500 Total Return Index Futures.</u>

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:**

CME Group

Christopher Bowen
Managing Director and Chief Regulatory Counsel
Legal Department

September 1, 2020

VIA ELECTRONIC PORTAL

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

Re: CFTC Regulation 40.2(a) Certification. Initial Listing of the Adjusted Interest Rate S&P 500 Total Return Index Futures Contract.
CME Submission No. 20-280

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. ("CME" or "Exchange") hereby certifies to the Commodity Futures Trading Commission ("CFTC" or "Commission") the initial listing of the Adjusted Interest Rate S&P 500 Total Return Index Futures contract ("AIR TRF" or the "Contract") as set forth below for trading on the CME Globex electronic trading platform ("CME Globex") and for submission for clearing via CME ClearPort effective on Sunday, September 20, 2020, for trade date Monday, September 21, 2020.

Contract Title	Commodity Code/ BTIC Code	Rulebook Chapter
Adjusted Interest Rate S&P 500 Total Return Index Futures	ASR/AST	CME 357B

Underlying references for the Contract shall be the S&P 500 Total Return Index ("Index" or "SPTR") and the Effective Federal Funds Rate ("EFFR").

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Section 1 - Contract Specifications

Commodity Code	**Contract Title**	**Commodity Code**	**BTIC Code**
	Adjusted Interest Rate S&P 500 Total Return Index Futures (AIR S&P 500 TRF)	ASR	AST
Underlying Index	S&P 500 Total Return Index (SPTR)		
Reference Rate	Effective Federal Funds Rate (EFFR)		
Trading Unit	$25 x Adjusted Interest Rate S&P 500 Total Return Index Futures Price		
Trading and Clearing Venue	ASR: CME ClearPort for EFRP transactions AST: CME Globex & CME ClearPort for block trades The price basis for all CME Globex or block transactions shall be BTIC only		
Trading and Clearing Hours	ASR: CME ClearPort: Sunday 5:00 p.m. - Friday 5:45 p.m. Central Time (CT) (no reporting Monday – Thursday 5:45 p.m. – 6:00 p.m. CT AST: CME Globex: Sunday - Friday 5:00 p.m. - 3:00 p.m. CT with a 60-minute break each day beginning at 4:00 p.m. CT CME Globex Pre-Open: Sunday 4:00 p.m. CT. Monday – Thursday 4:45 p.m. CT CME ClearPort: Sunday 5:00 p.m. - Friday 5:45 p.m. (no reporting Monday – Thursday 5:45 p.m. – 6:00 p.m. CT)		
Listing Schedule	Quarterly contracts listed for the thirteen (13) nearest quarters on the March Quarterly cycle (March, June, September, and December) and four (4) additional December contract months Delivery months for initial listing: Dec 20, Mar 21, Jun 21, Sep 21, Dec 21, Mar 22, Jun 22, Sep 22, Dec 22, Mar 23, Jun 23, Sep 23, Dec 23, Dec 24, Dec 25, Dec 26, Dec 27		
Termination of Trading	ASR: Trading terminates on the 3rd Friday of the contract month AST: Trading terminates on the business day prior to 3rd Friday of the contract month		
Price Basis and Minimum Price Increment	ASR: Prices are quoted and traded in Index points. Minimum price increment: 0.01 Index points AST: Prices are quoted and traded in Basis points. Minimum price increment: 0.50 Basis points		
Settlement Method	Financially Settled		
Settlement Procedures	The 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 month, the Final Settlement Price shall be determined on the first earlier day for which the Index is scheduled to be published		
Price Limits	There shall be no trading when trading is halted in the Primary Futures Contract Month for E-mini S&P 500 Index futures pursuant to Rule 35802.I		
Block Eligible / Minimum Block Minimum	ASR: No / Not block eligible AST: Yes / 500 contracts Reporting Window: RTH – 5 minutes, ETH/ATH – 15 minutes		
Position Limits / Reportability Thresholds	Position Reportability: 25 contracts All-Month Position Limit: 60,000 S&P 500 Stock Price Index (SP) futures equivalents, subject to aggregation. 5 AIR S&P 500 TRF = 1 SP futures equivalent		

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CME Matching Algorithm	F: First In, First Out (FIFO)

Section 2 – Underlying Indexes

A: S&P 500 Index[1]

The S&P 500 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. Index constituents include approximately 500 leading US companies and capture approximately 80% coverage of US market capitalization.

The index is reconstituted annually and 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 rebalancing[2]

Listing Universe	US company
Market Capitalization	At least $8.2 bln
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 July 31, 2020, the index comprises 505 constituent firms, with aggregate market capitalization of $27.3 trillion. The following statistics describe the distribution of index constituents in terms of their individual market capitalizations (in $ mln):

Largest	1,842,266
Average	56,383
Median	22,360
Smallest	1,983

The largest single constituent signifies 6.4% of index weight. The largest 10 constituents represent 27.8% of index weight.

B: S&P 500 Total Return Index ("SPTR")

The S&P Total Return index takes the S&P 500 index and builds in daily total dividend returns It has identical components as for the S&P 500 index.

C: Effective Federal Funds Rate ("EFFR")

The federal funds market consists of domestic unsecured borrowings in U.S. dollars by depository institutions from other depository institutions and certain other entities, primarily government-sponsored enterprises. The EFFR is calculated as a volume-weighted median of overnight federal funds transactions

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[1] All statistics referenced herein are drawn from the S&P 500® Factsheet as of July 31, 2020, S&P Dow Jones Indices, available via 'Factsheets' at: https://www.spglobal.com/spdji/en/index-family/equity/us-equity/us-market-cap/#overview

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

reported in the FR 2420 Report of Selected Money Market Rates.[3] The Federal Reserve Bank of New York publishes the EFFR for the prior business day on its website at approximately 9:00 a.m.[4]

D: Adjusted Interest Rate Total Index Future ("AIR TRF")

For simple 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. When a participant trades the contract, they are committed to the 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 trade. For example, an ensuing higher interest rate would cause the simple index futures to reprice higher. This repricing will impact contracts of longer duration much more significantly.

The Contract will deliver total equity return exposure enhanced with a built-in floating rate to accommodate financing costs, the relationship to the longer-term financing rate is mitigated by the introduction of an explicit financing component.

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 trades executed on CME Globex.

In addition to an established maturity date, the Contract valuation has three components: an equity index component: a benchmark financing component that accrues daily; and a financing spread adjustment component.

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

1. **The Equity Index component** - an agreement between two counterparties to pass equity performance from one counterparty to the other. The equity index price of the AIR TRF is always the official index daily close (e.g. S&P 500 Total Return Index, SPTR), as the trade is transacted via Basis Trade at Index Close ("BTIC"). The only exception is trading the futures contract via an 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 (e.g., EFFR) 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, represents the total realized overnight financing cost based upon the benchmark reference rate. The mathematics of the futures price dictates that the long position 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 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. Therefore, there

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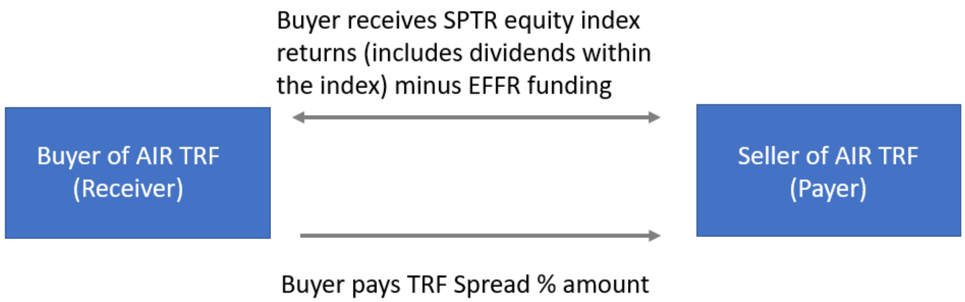
[3] The data source and the calculation methodology changed starting with the March 1, 2016 rate. For background on these technical changes, please see the following statements: A) Statement Regarding Planned Changes to the Calculation of the Federal Funds Effective Rate. B) Statement Regarding the Calculation Methodology for the Effective Federal Funds Rate. C) Statement Regarding the Implementation of Planned Changes to the Effective Federal Funds Rate.

[4] The EFFR will be published each business day that is not included in the Federal Reserve Bank of New York's Holiday Schedule. The EFFR, reflecting activity for the business day preceding the holiday, will be published on the subsequent business day. In the event that market participants recognize a previously unscheduled holiday, the New York Fed will publicly communicate its approach to publishing reference rates it administers, with the goal of aligning as closely as possible to the approach used for scheduled holidays

is no need for additional back office book entry for the transfer as it is accomplished via the Exchange's traditional variation margin process.

3. **Financing Spread Adjustment** – when trading the AIR TRF, counterparties will agree to a spread +/- to the reference rate (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.

Figure 1 - AIR TRF Mechanics



Adjusted Interest Rate Total Return Futures Valuation

In conjunction with using the SPTR, the calculation will adjust for accrued interest using the EFFR.

Market participants can trade the TRF Spread price ($\boldsymbol{s_t}$) directly. The Contract shall be traded via a form of BTIC transaction. Namely, the participants consummate a trade as 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.

There is, however, a deviation from previous BTIC trading arrangement in that, instead of the basis price in BTIC being quoted and traded in index points, the AIR TRF 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 month.

Once the TRF Spread is consummated, 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 is defined as:

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

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

$$= (SPTR_t - AF_t) + SPTR_t \times \tau_t \times \boldsymbol{s_t}$$

Where:

- t: valuation time;
- $SPTR_t$: S&P 500 Total Return index close price. It is the Gross Total Return index on S&P 500 also known by the index ticker "SPTR";
- 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 $DF_t = SPTR_{t-1} \times EFFR_{t-1} \times \tau_t^{FD}$;
- *EFFR*: The overnight financing rate is determined as the Effective Federal Funds Rate

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- FSA_t: Financing spread adjustment as defined by $FSA_t = SPTR_t \times \tau_t \times s_t$;
- s_t: TRF spread price;
- T: Expiration date of the future;
- τ_t^{FD}: annualized financing days as defined by τ_t^{FD} = [(t)+2 settlement days]– [(t-1) +2 settlement days]/360.
- τ_t: time to expiry defined by τ_t = [(T+ 2 settlement days) – (t + 2 settlement days)] / 360.

The overnight financing rate is determined as the EFFR 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): $AF_t = \sum_{i=t_0}^{t} SPTR_{i-1} \times EFFR_{i-1} \times \tau_i^{FD}$.

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}).

Given that the accrued financing value is a function of each contract's inception (listing) date, two contracts listed at different dates will have different accrued financing values.

The Exchange will publish the Accrued financing (AF) value every business day to market participants for all the listed contract months.

Final Settlement of the Adjusted Interest Rate Total Return Future:

The final settlement of the AIR TRF is the SPTR 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.

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

The expiry level of SPTR on final settlement will be determined by the Special Opening Quotation ("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 primary market, are based on competitive trading

Section 3 – Non Narrow-Based Indexes

Pursuant to the Commodity Exchange Act ("CEA" or "Act"), the CFTC has exclusive jurisdiction over futures and options on futures based on non-narrow-based securities indexes. CEA Section 1a(35) provides certain criteria for determining whether an index is broad or narrow.

S&P 500 is globally recognized securities benchmarks and readily satisfy the requirements under the CEA for being deemed to be non-narrow-based securities indexes. Accordingly, the Contract is subject to the exclusive jurisdiction of the Securities Exchange Commission ("SEC").

Exhibit 1 - CEA Section 1a Narrow-Based Index Tests for the S&P 500 Index
Quantiles of empirical distributions of daily measures of index characteristics, December 1, 2019 to May 31, 2020.

	Index weight of largest index component (%)	*Aggregate index weight of largest 5 index components (%)*	*Trading volume of smallest index components aggregating to 25 pct of index weight ($ blns/day)*
Maximum	3.8%	11.2%	$66.55
75 Pctl	3.6%	11.0%	$24.07

Median	3.3%	10.9%	$24.08
25 Pctl	3.2%	10.7%	$21.93
Minimum	2.8%	10.4%	$9.10

Data Source: Bloomberg LLC

The share of Index weight occupied by the largest component stock, test results appear in the left-hand panel of Exhibit 1. For each index, the entire empirical distribution of daily outcomes resides far 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 4 percent of index weight.

Similar results are shown in the middle panel of Exhibit 1. 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 12 percent of index weight.

Summary statistics for distributions of trading volume, shown in Exhibit 1's right-hand panel, demonstrate that the Index is not narrow-based. 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 $22 billion per day. The minimum observed daily trading volume is $9.1 billion, which exceeds the test threshold by at least two orders of magnitude.

Section 4 – Compliance with Core Principles

The Exchange reviewed the designated contract market core principles ("DCM Core Principles") as set forth in the Act and identified that the following DCM Core Principles may be impacted as follows:

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, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. 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 expiring Contract.

As of May 31, 2020, the S&P 500 Index and the S&P 500 Total Return Index each comprised of the same 505 component stocks with approximate aggregate market capitalization of $26.2 trillion.[5]

The final settlement price for an expiring Contract shall are based entirely upon transaction prices or actionable price indications made competitively and transparently on organized primary listing exchanges, under the regulation of the SEC.

[5] S&P DJI Indices

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

$$AIR\ S\&P\ 500\ TRF = (Equity\ Index - Accrued\ Financing\ ) + Financing\ Spread\ Adjustment$$

In conjunction with using the SPTR, the calculation will adjust for accrued interest using the EFFR.

Specifically, the final settlement price for an expiring Contract is based on the Special Opening Quotation ("SOQ") of the corresponding Index computed by the Index administrator on the basis of market order auctions for Index component stocks conducted on US primary listing exchanges.

The Final Settlement Price of the Contract shall be equal to a special opening quotation[6] (SOQ) of the S&P 500 Total Return Index minus the Accrued Financing on Day of Final Settlement Price Determination. Such 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, and where the Accrued Financing will be calculated up to and inclusive of the Daily Financing for the Expiration Date of the Contract.

Accrued financing for the current business day is equal to the accrued financing for the previous business day plus the daily financing cost. The daily financing is determined on the morning of each business day, and reflects the hypothetical financing cost of rolling the corresponding US equity trades done on the previous exchange business day to the current exchange business day:

Accrued Financing Daily Accrual =
Previous Day's Index Value * Benchmark Interest Rate * (Number of Days / 360)

The previous day's index value is the daily close for the S&P 500 Total Return Index on that previous exchange business day. The benchmark interest rate is the EFFR, expressed as a percentage. The number of days is the number of calendar days between two value dates for physical settlement of a US equity trade – one value date associated with an equity trade done on the current exchange business day, and the second value date associated with an equity trade done on the previous exchange business date.

Core Principle 4 – Prevention of Market Disruption

Trading in the Contract shall be subject to the Rules of CME, 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 certified herein shall be subject to monitoring and surveillance by CME Group's Market Regulation Department.

As with any new product that is listed on a CME Group designated contract market and that references a broad-based index of US equity share prices, moreover, trading in the Contract shall be subject to price limits that are harmonized with the US equity market-wide limit-up-limit-down mechanism set forth 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"[7] 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

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

[7] Exhibit A, 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).

When considered collectively with positions in Standard and Poor's 500 Stock Price Index Futures and Adjusted Interest Rate S&P 500 Total Return Index futures for the purpose of position limits, the futures product certified herein shall be subject to 60,000 net long or short S&P 500 index futures across all contract months.

For purpose of position limits, 5 long AIR S&P 500 TRF offsets 1 short Standard and Poor's 500 Stock Price Index Futures and vice versa. There shall be a Position Reporting Level of 25 Contracts. Both requirements are comparable to standards that apply to US equity index futures products currently listed for trading by the Exchange.

To place the prescribed position limits in context, consider market conditions on May 31, 2020. With the closing value of the S&P 500 Total Return Index at 6,227.81, the notional value of a hypothetical 300,000 (60,000 X 5) -contract limit position in the Contract would have been approximately $46.7 billion without accounting for the accrued financing component (equal to (6,227.81 Index points) x ($25 per Index point per contract) x (60,000 Contracts) x 5). This represents approximately 0.18% of the Index's closing market capitalization of $26.2 trillion.

Core Principle 7 – Availability of General Information

The Exchange shall disseminate a Special Executive Report ("SER") that sets forth information in regard to specifications, terms, and conditions of the Contract. In addition to such SER, daily trading volume, open interest, and price information for the Contract shall be published 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 daily of the Contract on the CME Group website and through quote vendors.

Core Principle 9 – Execution of Transactions

The Contract will be listed for trading on the CME Globex electronic trading platform and for submission of block trades for clearing via CME ClearPort using BTIC pricing as previously described. The Contract will also be available for EFRP transactions via CME ClearPort using outright pricing as previously described CME Globex provides for competitive and open execution of transactions and affords the benefits of reliability and global connectivity. The applicable CME Globex non-reviewable trading ranges shall be as set forth in the appendices.

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.

The financing spread adjustment reflects the adjustment to the financing cost associated with the trade being done at a differential over/under the benchmark interest rate, and is calculated as:

Financing Spread Adjustment
= Current Day's Index Value * BTIC Price * (Days To Maturity / 360)

Where the days to maturity is the calendar days between two value dates for physical settlement of a US equity trade – one value date associated with an equity trade on that contract month's final clearing settlement date, and the second value date associated with an equity trade transacted on the current Exchange business date.

As described above, the absolute price for each trade in the cleared future will be derived by CME Clearing from the BTIC price. for each BTIC transaction. CME Clearing will publish new AIR Futures Datafiles, to provide market participants with the details of the daily and accrued financing cost, and the daily and final settlement prices for the BTIC transaction and the cleared future

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 derivative clearing organization, and which is subject to all CFTC regulations related thereto.

Core Principle 12 – Protection of Markets and Market Participants

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

Core Principle 13 – Disciplinary Procedures

Chapter 4 of the CME Rulebook provide 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 the Contract are identified.

Core Principle 14 – Dispute Resolution

Disputes in respect of the Contract shall be subject to the arbitration provisions set forth in Chapter 6 of both the CME Rulebook, 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 listing the Contract complies 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-filings.html.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments:	Appendix A	CME Rulebook Chapter 357B
	Appendix B	Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the CME Rulebook (attached under separate cover)
	Appendix C	CME Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table
	Appendix D	CME Rule 589. – ("Special Price Fluctuation Limits and Price Limits Table")
	Appendix E	Exchange Fees

Appendix A

CME Rulebook
Chapter 357B

Adjusted Interest Rate S&P 500 Total Return Index Futures

357B00. SCOPE OF CHAPTER

This chapter is limited in application to Adjusted Interest Rate S&P 500 Total Return Index futures ("AIR S&P500 TRF" or "futures").

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

AIR S&P 500 TRF = (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.

357B00.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.

357B00.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).

357B00.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.

357B01. 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");
   - b. **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 Overnight Effective Federal Funds Rate (EFFR) 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;

k. **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;

l. **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 357B06. 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.

357B02. TRADING SPECIFICATIONS

357B02.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.

357B02.B. Trading Unit

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

357B02.C. Price Increments

The price for the AIR S&P 500 TRF 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 Spread will be expressed in basis points and shall be transacted via BTIC (rule 357B06). The minimum price fluctuation shall be 0.5 basis points.

357B02.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.

357B02.E. [Reserved]

357B02.F. [Reserved]

357B02.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.

357B02.H. [Reserved]

357B02.I. Price Limits and Trading Halts

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

357B03. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

357B03.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.

357B03.B. Final Settlement

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 357B02.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 357B03.A.).

357B04. [RESERVED]

357B05. [RESERVED]

357B06. BASIS TRADE AT INDEX CLOSE ("BTIC") TRANSACTIONS

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

357B06.A. BTIC Block Trade Requirements

BTIC block trades must be executed in accordance with the requirements of Rule 526. For a 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 block trade executed after the scheduled close of the Primary Listing Exchange, it shall be construed as a trade for the next business day and its price shall be determined based on all the parameters governing trades for the following business day.

357B06.B. Price Assignment Procedure for BTIC Futures

The price of a BTIC transaction shall be determined by the Exchange after the close of the Primary Listing Exchange, according to the Definitions in 357B01.

Where an order for a BTIC block trade would result in a futures price lower than the respective 20% Price Limit (Rule 589), such BTIC block trade order shall be cancelled.

If the Index Administrator publishes an Index Close but then subsequently amends and re-publishes the Index Close prior to the end of the next trading period, then the amended Index Close shall be used to recalculate the daily settlement price. In addition, the amended Index Close shall be used to calculate the difference applicable to impacted trades in relation to their originally calculated Traded Futures Price and determine the corresponding adjustment based on the amended Index Close. These adjustments shall be determined on the next trading day.

357B06.C. BTIC Order Minimum Price Increment

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.

357B06.D. Termination of Trading

BTIC 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 pursuant to CME Rules 524.B.

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 and Rules 357B06 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 Point terms outright, pursuant to Rules 357B02. of this Chapter, or in BTIC terms, pursuant to Rules 524.B. and Rules 357B06. of this Chapter.

357B06.D. Trading Halts for BTIC Futures

At such time as the Primary Listing Exchange may declare a Regulatory Halt in response to a Level 3 (20%) Market Decline in the S&P 500 Total Return Index, such BTIC transactions shall be cancelled.

(End Chapter 357B)

DISCLAIMER

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 underlined)

		Outrights			Spreads	
Instrument	**Globex Symbol**	**Globex Non-Reviewable Ranges (NRR)**	**Globex Minimum Tick**	**NRR: Ticks**	**NRR: Globex Format**	**NRR: Minimum Ticks**
BTIC on Adjusted Interest Rate S&P 500 Total Return Index Futures	AST	3 index points	300	60	N/A	N/A

Appendix D

CME Rulebook
Chapter 5
(“Trading Qualifications and Practices”)
Rule 589. – (“Special Price Fluctuation Limits and Price Limits”) Table
(additions underlined)

Product	Rulebook Chapter	Commodity Code	Primary/ Associated	Associated With	Daily Price Limit
BTIC on Adjusted Interest Rate S&P 500 Total Return Index Futures	357B	AST	Associated	ES	Daily Price Limit Table

Appendix E

Thresholds and reporting requirements for block trades on CME products

(additions underlined)

Product Group	Clearing Code	Product Description	Block Threshold	Reporting Window
Equity Index	AST	BTIC on Adjusted Interest Rate S&P 500 Total Return Index Futures	500	RTH - 5 ETH/ATH – 15

Appendix F

CME Index Futures Products Eligible for Basis Trade at Index Close ("BTIC") Pricing

(additions underlined)

Index Futures Products	BTIC Ticker	Product Chapter	Minimum Tick Increment
BTIC on Adjusted Interest Rate S&P 500 Total Return Index Futures	AST	357B	0.5

Appendix G

Exchange Fees

Membership Type	Venue/Transaction Type	Fee: AIR S&P 500 TRFs executed with fewer than 24 months to expiration	Fee: AIR S&P 500 TRFs executed between 24 and 59 months to expiration	Fee: AIR S&P 500 TRFs executed with 60+ months to expiration
Individual Members Clearing Members Rule 106.J Equity Member Firms & Rule 106.J Qualified Subsidiaries Rule 106.I Members & Rule 106.I Qualified Affiliates Rule 106.S Member Approved Funds	Delivery	$0.09		
	EFP|EFR|Block|BTIC	$1.84	$3.68	$7.36
Rule 106.D Lessees Rule 106.F Employees	Delivery	$0.21		
	EFP|EFR|Block|BTIC	$1.96	$3.92	$7.84
Rule 106.R Electronic Corporate Members (For other than CME Globex - Non-Member rates apply)	CME Globex - BTIC	$2.14	$4.28	$8.56
Rule 106.H and 106.N Firms Clearing Non-Equity Member Firms	Delivery	$0.39		
	EFP|EFR|Block|BTIC	$2.14	$4.28	$8.56
International Incentive Program (IIP) and International Volume Incentive Program (IVIP) Participants (For other than CME Globex - Non-Member rates apply)	CME Globex-BTIC	$2.15	$4.30	$8.60
Central Bank Incentive Program (CBIP), Emerging Markets Bank Incentive Program (EMBIP), Latin American Fund Manager Incentive Program (FMIP), Participants (For other than CME Globex - Non-Member rates apply)	CME Globex-BTIC	$2.15	$4.30	$8.60
CBOE Members (For S&P products only; for all other products - Non-Member rates apply)	Delivery	$0.35		
	EFP|EFR|Block|BTIC	$2.10	$4.20	$8.40
Non-Members	Delivery	$0.40		

	EFP|EFR|Block|BTIC	$2.15	$4.30	$8.60

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