

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 21-256 (4 of 4)

Organization: The Board of Trade of the City of Chicago, Inc. ("CBOT")

Filing as a: DCM SEF DCO SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 07/07/21 Filing Description: Initial Listing of the Adjusted Interest Rate Russell 2000® Total Return Index Futures, Adjusted Interest Rate Russell 1000® Total Return Index Futures, Adjusted Interest Rate Nasdaq-100 Total Return Index® Futures, and Adjusted Interest Rate Dow Jones Industrial Average™ Total Return Index Futures Contracts

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

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

Rule Numbers:

New Product

Please note only ONE product per Submission.

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

Official Product Name: See filing.

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:

July 7, 2021

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 Russell 2000[®] Total Return Index Futures, Adjusted Interest Rate Russell 1000[®] Total Return Index Futures, Adjusted Interest Rate Nasdaq-100 Total Return Index[®] Futures, and Adjusted Interest Rate Dow Jones Industrial Average[™] Total Return Index Futures Contracts. CBOT Submission No. 21-256 (4 of 4)

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. (“CME”) and The Board of Trade of the City of Chicago, Inc. (“CBOT”) (collectively, the “Exchange”) hereby certify to the Commodity Futures Trading Commission (“CFTC” or “Commission”) the initial listing of the Adjusted Interest Rate Russell 2000[®] Total Return Index Futures, Adjusted Interest Rate Russell 1000[®] Total Return Index Futures, Adjusted Interest Rate Nasdaq-100 Total Return Index[®] Futures, and Adjusted Interest Rate Dow Jones Industrial Average[™] Total Return Index Futures contracts (collectively, the “Contracts”) as set forth below for trading on the CME Globex electronic trading platform (“CME Globex”) and for submission for clearing via CME ClearPort effective Sunday, July 25, 2021, for trade date Monday, July 26, 2021.

Contract Title	Rulebook Chapter	Commodity Code	BTIC Code
Adjusted Interest Rate Russell 2000 [®] Total Return Index Futures	CME 373	A2R	A2T
Adjusted Interest Rate Russell 1000 [®] Total Return Index Futures	CME 372	ARR	ART
Adjusted Interest Rate Nasdaq-100 Total Return Index [®] Futures	CME 374	AQR	AQT
Adjusted Interest Rate Dow Jones Industrial Average [™] Total Return Index Futures	CBOT 33	ADR	ADT

Section 1 - Contract Specifications

	Contract Title	Commodity Code	BTIC Code
	Adjusted Interest Rate Russell 2000 [®] Total Return Index Futures	A2R	A2T
	Adjusted Interest Rate Russell 1000 [®] Total Return Index Futures	ARR	ART
	Adjusted Interest Rate Nasdaq-100 Total Return Index [®] Futures	AQR	AQT
	Adjusted Interest Rate Dow Jones Industrial Average [™] Total Return Index Futures	ADR	ADT
Underlying Indexes	Russell 2000 [®] Total Return Index (RU20INTR) Russell 1000 [®] Total Return Index (RU10INTR) Nasdaq-100 Total Return Index [®] (XNDX) Dow Jones Industrial Average Total Return Index (DJITR)		
Reference Rate	Effective Federal Funds Rate (EFFR)		
Trading Units	\$10 x Adjusted Interest Rate Russell 2000 [®] Total Return Index Futures Price \$10 x Adjusted Interest Rate Russell 1000 [®] Total Return Index Futures Price \$10 x Adjusted Interest Rate Nasdaq-100 Total Return Index [®] Futures Price \$2 x Adjusted Interest Rate Nasdaq-100 Total Return Index [®] Futures Price		
Trading and Clearing Venues	A2R, ARR, AQR, ADR: CME ClearPort for EFRP transactions A2T, ART, AQT, ADT: CME Globex & CME ClearPort The price basis for all CME Globex or block transactions shall be BTIC only		
Trading and Clearing Hours	A2R, ARR, AQR, ADR: CME ClearPort: Sunday - Friday 6:00 p.m. - 5:00 p.m. Central Time (CT) with a 60-minute break each day beginning at 4:00 p.m. CT A2T, ART, AQT, ADT: 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 - Friday 5:00 p.m. - 3:00 p.m. CT with a 60-minute break each day beginning at 4:00 p.m. CT		
Listing Schedule	Quarterly contracts listed for the nine (9) nearest quarters on the March Quarterly cycle (March, June, September, and December) and five (5) additional December contract months Initial Listing: Sep 2021, Dec 2021, Mar 2022, Jun 2022, Sep 2022, Dec 2022, Mar 2023, Jun 2023, Sep 2023 Dec 2023, Dec 2024, Dec 2025, Dec 2026, Dec 2027		

Termination of Trading	A2R, ARR, AQR, ADR: Trading terminates on the third Friday of the contract month A2T, ART, AQT, ADT: Trading terminates on the business day prior to third Friday of the contract month
Price Basis and Minimum Price Increment	A2R, ARR, AQR, ADR: Prices are quoted and traded in Index points. Minimum price increment: 0.01 Index points A2T, ART, AQT, ADT: Prices are quoted and traded in Basis points. Minimum price increment: 0.50 Basis points
Settlement Method	Financially Settled
Settlement Procedures	Final Settlement Price shall be determined based on using the Pricing Formula, with the special opening quotation of the Russell 2000® Total Return Index (RU20INTR SOQ), Russell 1000® Total Return Index (RU10INTR SOQ), Nasdaq-100 Total Return Index® (XNDX SOQ), DJIA Total Return Index (DJITR SOQ). For the avoidance of doubt, the Final Settlement Price shall be respectively: RU20INTR SOQ – Accrued Financing on Day of Final Settlement Price Determination RU10INTR SOQ – Accrued Financing on Day of Final Settlement Price Determination XNDX SOQ – Accrued Financing on Day of Final Settlement Price Determination DJITR SOQ – Accrued Financing on Day of Final Settlement Price Determination
Price Limits	There shall be no trading in futures contracts when trading is halted in the Primary Futures Contract Month for E-mini Russell 2000 Index futures pursuant to Rule 39302.I., for E-mini Russell 1000 Index futures pursuant to Rule 38302.I., for E-mini Nasdaq-100 Index® futures pursuant to Rule 35902.I., for CBOT® E-mini Dow Jones Industrial Average SM Index Futures pursuant to Rule 27102.I.
Block Eligible / Minimum Block Threshold	A2R, ARR, AQR, ADR: No / Not block eligible A2T, ART: Yes / 50 contracts AQT, ADT: Yes / 250 contracts Reporting Window: RTH – 5 minutes, ETH/ATH – 15 minutes
CME Globex Matching Algorithm	F: First In, First Out (FIFO)

Section 2 – Underlying Indexes

A: 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 Contracts 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. the Russell 2000[®] Total Return Index (RU20INTR), Russell 1000[®] Total Return Index (RU10INTR), Nasdaq-100 Total Return Index[®] (XNDX), Dow Jones Industrial Average Total Return Index (DJITR) (“Index”)), 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 is no need for additional back office book entry for the transfer as it is accomplished via the Exchanges’ 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.

Adjusted Interest Rate Total Return Futures Valuation

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

Market participants can trade the TRF Spread price (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 Exchanges 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 Exchanges, 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 Exchanges. 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:

$$\begin{aligned} \text{Future Price}_t &= (\text{Equity Index} - \text{Accrued Financing}) + \text{Financing Spread Adjustment} \\ &= (\text{Index}_t - \text{AF}_t) + \text{FSA}_t \\ &= (\text{Index}_t - \text{AF}_t) + \text{Index}_t \times \tau_t \times s_t \end{aligned}$$

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 $\text{AF}_t = \text{AF}_{t-1} + \text{DF}_t$;
- DF_t : Daily financing at time t as defined by $\text{DF}_t = \text{Index}_{t-1} \times \text{EFFR}_{t-1} \times \tau_t^{\text{FD}}$;
- EFFR : The overnight financing rate is determined as the Effective Federal Funds Rate
- FSA_t : Financing spread adjustment as defined by $\text{FSA}_t = \text{Index} \times \tau_t \times s_t$;
- s_t : TRF spread price;
- T : Expiration date of the future;
- τ_t^{FD} : annualized financing days as defined by $\tau_t^{\text{FD}} = [(t)+2 \text{ settlement days}] - [(t-1) + 2 \text{ settlement days}] / 360$.
- τ_t : time to expiry defined by $\tau_t = [(T+ 2 \text{ settlement days}) - (t + 2 \text{ settlement days})] / 360$.

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 (t_0) until the valuation time (t): $\text{AF}_t = \sum_{i=t_0}^t \text{Index}_{i-1} \times \text{EFFR}_{i-1} \times \tau_i^{\text{FD}}$.

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 Exchanges 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 Index 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.

$$\text{Future Price}_{t=T}^{\text{final settlement}} = \text{Index}_T^{\text{SOQ}} - AF_T$$

The expiry level of Index 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.

B: Russell 2000® and 1000® Indexes

FTSE Russell provides float-adjusted, market capitalization–weighted indexes for a precise picture of the market. Today, \$9.1 trillion in assets are benchmarked to the Russell US indexes. Neither Frank Russell Company’s publication of the Russell Indexes nor its licensing of its trademarks for use in connection with securities or other financial products derived from a Russell Index in any way suggests or implies a representation or opinion by Frank Russell Company as to the attractiveness of investment in any securities or other financial products based upon or derived from any Russell Index. Frank Russell Company is not the issuer of any such securities or other financial products and makes no express or implied warranties of merchantability or fitness for any particular purpose with respect to any Russell Index or any data included or reflected therein, nor as to results to be obtained by any person or any entity from the use of the Russell Index or any data included or reflected therein.

Russell indexes are objectively constructed and based on transparent rules. The broadest U.S. index is the Russell 3000E Index, which contains the largest 4,000 U.S. companies by market capitalization. Sub-indexes in the Russell 3000E Index are broken out by market capitalization and style. The members of the Russell 3000E Index and its subsets are determined each year during annual reconstitution and enhanced quarterly with the addition of initial public offerings (IPOs).

Russell U.S. indexes capture approximately 99% of the U.S. equity market and 100% of the investable U.S. market. Below are the requirements for securities’ inclusion in the Russell U.S. indexes.

A stock must have a close price at or above \$1.00 (on its primary exchange) on rank day in May to be considered eligible for inclusion. In order to reduce unnecessary turnover, if an existing index member’s closing price is less than \$1.00 on rank day in May, it will be considered eligible if the average of the daily closing prices (from its primary exchange) during the 30 days prior to the rank date is equal to or greater than \$1.00. If an existing index member does not trade on the rank day in May, it must price at \$1.00 or above on another eligible U.S. exchange to remain eligible. A stock added during the quarterly IPOs process is considered a new index addition and therefore must have a close price on its primary exchange at or above \$1.00 on the last day of the IPO eligibility period in order to qualify for index inclusion.

Companies with a total market capitalization less than \$30 million are not eligible for inclusion in Russell U.S. indexes.

Companies with only a small portion of their shares available in the marketplace are not eligible for the Russell indexes. Companies with less than an absolute 5% of shares available will be removed from eligibility

The Russell 2000® Index measures the performance of the small-cap segment of the US equity universe. The Russell 2000® Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000® is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set.

Index characteristics

(As of 5/31/2021)

	Russell 2000®	Russell 3000®
Price/Book	2.78	4.33
Dividend Yield	0.94	1.31
P/E Ex-Neg Earnings	21.73	25.71
EPS Growth - 5 Years	9.75	13.66
Number of Holdings	2,038	3,057

Market capitalization (in billions USD)

(As of 5/31/2021)

	Russell 2000®	Russell 3000®
Average Market Cap (\$-WTD)	\$3.743	\$415.968
Median Market Cap	\$1.043	\$2.406
Largest Stock by Market Cap	\$22.379	\$2091.965

The Russell 1000® Index measures the performance of the large-cap segment of the US equity universe. It is a subset of the Russell 3000® Index and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000® represents approximately 92% of the US market. The Russell 1000® Index is constructed to provide a comprehensive and unbiased barometer for the large-cap segment and is completely reconstituted annually to ensure new and growing equities are included.¹

¹ <https://www.ftserussell.com/analytics/factsheets/home/search>

Index characteristics

(As of 5/31/2021)

	Russell 1000 [®]	Russell 3000 [®]
Price/Book	4.51	4.33
Dividend Yield	1.34	1.31
P/E Ex-Neg Earnings	25.95	25.71
EPS Growth - 5 Years	13.83	13.66
Number of Holdings	1,019	3,057

Market capitalization (in billions USD)

(As of 5/31/2021)

	Russell 1000 [®]	Russell 3000 [®]
Average Market Cap (\$-WTD)	\$445.558	\$415.968
Median Market Cap	\$14.884	\$2.406
Largest Stock by Market Cap	\$2091.965	\$2091.965

C: Russell 2000[®] Total Return Index (“RU20INTR”) and the Russell 1000[®] Total Return Index (“RU10INTR”)

Both the Russell 2000[®] Total Return Index (RU20INTR) and the Russell 1000[®] Total Return Index (RU10INTR) take the Russell 2000[®] and the Russell 1000[®] index and builds in daily total dividend returns. It has identical components as for the Russell 2000[®] and the Russell 1000[®] indexes, respectively.

D: Nasdaq-100 Index[®]

The Nasdaq-100 Index[®] is designed to measure the performance of 100 of the largest Nasdaq-listed non-financial companies.

Eligible security types generally include American Depositary Receipts (ADRs), common stocks, ordinary shares, and tracking stocks. Companies organized as Real Estate Investment Trusts (“REITs”) are not eligible for index inclusion.

The issuer of the security’s primary U.S. listing must exclusively be listed on the Nasdaq Global Select Market or the Nasdaq Global Market. The security must be classified as a Non-Financial company (any Industry other than Financials) according to the Industry Classification Benchmark (ICB).

There is no market capitalization eligibility criterion. Each security must have a minimum average daily trading volume of 200,000 shares (measured over the three calendar months ending with the month that includes the Reconstitution reference date). There is no float eligibility criterion.

E: Index Definition: Nasdaq-100 Total Return index[®]

The total return index values include reinvestment of all cash distributions of index members on the ex-date. The total return index value of each index is calculated daily and shows the price appreciation or

depreciation plus dividend yield of the component securities. It is equal to the previous day index value multiplied by the ratio of current price return index value plus cash distributions value to the previous day closing price return index value. The cash distribution value is determined by multiplying the value of each cash distribution on the ex-date by the security's index shares and dividing that value by the divisor of the price return index. It has identical components as for the Nasdaq-100 Index

F: Dow Jones Industrial Average™ Index

The index is a 30-stock, price-weighted index that measures the performance of some of the largest U.S. companies.

While stock selection is not governed by quantitative rules, a stock typically is added only if the company has an excellent reputation, demonstrates sustained growth and is of interest to a large number of investors. Since the indexes are price weighted, the Index Committee evaluates stock price when considering a company for inclusion. The Index Committee monitors whether the highest-priced stock in the index has a price more than 10 times that of the lowest. Maintaining adequate sector representation within the index is also a consideration in the selection process for the Dow Jones Industrial Average. Companies should be incorporated and headquartered in the U.S., and a plurality of revenues should be derived from the U.S.

G: Dow Jones Industrial Average™ Total Return Index (“DJITR”)

Gross and net total return indices are calculated for most S&P DJIA branded indices including Dow Jones Industrial Average™ Total Return Index. Cash dividends are generally applied on the ex-date of the dividend (market exceptions are noted in this document). Net return indices reflect the return to an investor where dividends are reinvested after the deduction of a withholding tax.² It has identical components as for the Dow Jones Industrial Average Index.

H: 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 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

² Equity Indices Policies & Practices <https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-equity-indices-policies-practices.pdf>

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

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.

A: Russell 2000® Index

The Russell 2000® Index and therefore the Russell 2000® Total Return Index as it is a derivation of the Russell 2000® Index considered herein, fails to meet any criterion for consideration as a narrow-based index. *The Exchanges have determined, therefore, that the Adjusted Interest Rate Russell 2000® Total Return Index Futures Contract shall be listed for trading under the sole jurisdiction of the CFTC.*

In respect of criterion (i), as of June 14, 2021, the number of Index components for the Russell 2000® Index was 2034 securities, which exceeds the 9-security minimum threshold.

In respect of criteria (ii), (iii), and (iv), Exhibit 1 displays summary statistics of daily data for the 6-month interval November 2, 2020 through April 30, 2021. Results are based on the Russell 2000® Index, which has identical components for the Russell 2000® Total Return Index.

Exhibit 1

CEA Section 1a(25) Narrow-Based Index Tests for the Russell 2000® Index

Quantiles of empirical distributions of daily measures of index characteristics, November 2, 2020 to April 30, 2021.

	Criterion (ii)	Criterion (iii)	Criterion (iv)
	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
	(pct)	(pct)	(\$ billions / day)
	RTY	RTY	RTY
Maximum	1.02%	3.26%	\$11.38
75 Pctl	0.72%	2.85%	\$2.98
Median	0.60%	2.45%	\$2.49
25 Pctl	0.55%	2.33%	\$2.11
Minimum	0.48%	2.11%	\$0.90

Data Source: Bloomberg LLC

For criterion (ii), the share of Index weight occupied by the largest component stock, test results appear in the left-hand panel of Exhibit 1. For this 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 2 percent of index weight.

Similar results obtain for criterion (iii), 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 4 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 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 \$2.49 billion per day. The minimum observed daily trading volume is \$900 million, which exceeds the test threshold by over 30 times.

B: Russell 1000® Index

The Russell 1000® Index and therefore the Russell 1000® Total Return Index as it is a derivation of the Russell 1000® Index considered herein, fails to meet any criterion for consideration as a narrow-based index. *The Exchanges have determined, therefore, that the Adjusted Interest Rate Russell 1000® Total Return Index Futures Contract shall be listed for trading under the sole jurisdiction of the CFTC.*

In respect of criterion (i), as of June 14, 2021, the number of Index components for the Russell 1000® Index was 1018 securities, which exceeds the 9-security minimum threshold.

In respect of criteria (ii), (iii), and (iv), Exhibit 2 displays summary statistics of daily data for the 6-month interval November 2, 2020 through April 30, 2021. Results are based on the Russell 1000® Index, which has identical components for the Russell 1000® Total Return Index.

Exhibit 2 CEA Section 1a(25) Narrow-Based Index Tests for the Russell 1000® Index

Quantiles of empirical distributions of daily measures of index characteristics, November 2, 2020 to April 30, 2021.

	Criterion (ii) Index weight of largest index component (pct) RIY	Criterion (iii) Aggregate index weight of largest 5 index components (pct) RIY	Criterion (iv) Trading volume of smallest index components aggregating to 25 pct of index weight (\$ billions / day) RIY
Maximum	6.46%	18.99%	\$85.89
75 Pctl	5.85%	17.94%	\$26.08
Median	5.67%	17.61%	\$22.58
25 Pctl	5.37%	17.31%	\$19.09
Minimum	5.08%	16.69%	\$8.20

Data Source: Bloomberg LLC

For criterion (ii), the share of Index weight occupied by the largest component stock, test results appear in the left-hand panel of Exhibit 2. For this 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 7 percent of index weight.

Similar results obtain for criterion (iii), shown in the middle panel of Exhibit 2. 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 19% percent of index weight.

Summary statistics for distributions of trading volume, shown in Exhibit 2'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 \$23 billion per day. The minimum observed daily trading volume is \$8.2 billion, which exceeds the test threshold by over 270 times.

C: Nasdaq-100 Index®

The Nasdaq-100 Index® and therefore the Nasdaq-100 Total Return Index® as it is a derivation of the Nasdaq-100 Index® considered herein, fails to meet any criterion for consideration as a narrow-based index. *The Exchanges have determined, therefore, that the Adjusted Interest Rate Nasdaq-100 Total Return Index® Futures Contract shall be listed for trading under the sole jurisdiction of the CFTC.*

In respect of criterion (i), as of June 14, 2021, the number of Index components for the Nasdaq-100 Index® was 102 securities, which exceeds the 9-security minimum threshold.

In respect of criteria (ii), (iii), and (iv), Exhibit 3 displays summary statistics of daily data for the 6-month interval November 2, 2020 through April 30, 2021. Results are based on the Nasdaq-100 Index®, which has identical components for the Nasdaq-100 Total Return Index®.

Exhibit 3 CEA Section 1a(25) Narrow-Based Index Tests for the Nasdaq-100 Index®

Quantiles of empirical distributions of daily measures of index characteristics, November 2, 2020 to April 30, 2021.

	Criterion (ii) Index weight of largest index component	Criterion (iii) Aggregate index weight of largest 5 index components	Criterion (iv) Trading volume of smallest index components aggregating to 25 pct of index weight
	(pct)	(pct)	(\$ billions / day)
	NDQ	NDQ	NDQ
Maximum	13.40%	42.84%	\$30.00
75 Pctl	12.68%	41.37%	\$12.29
Median	11.90%	38.03%	\$10.57
25 Pctl	11.27%	37.31%	\$9.48
Minimum	10.86%	36.56%	\$4.40

Data Source: Bloomberg LLC

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 this 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 14 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 43 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 \$11 billion per day. The minimum observed daily trading volume is \$4.4 billion, which exceeds the test threshold by near 150 times.

D: Dow Jones Industrial Average™ Index

The Dow Jones Industrial Average Index and therefore the Dow Jones Industrial Average Total Return Index as it is a derivation of the Dow Jones Industrial Average Index considered herein, fails to meet any criterion for consideration as a narrow-based index. *The Exchanges have determined, therefore, that the Adjusted Interest Rate DJIA Total Return Index Futures Contract shall be listed for trading under the sole jurisdiction of the CFTC.*

In respect of criterion (i), as of June 14, 2021, the number of Index components for the Dow Jones Industrial Average Index was 30 securities, which exceeds the 9-security minimum threshold.

In respect of criteria (ii), (iii), and (iv), Exhibit 4 displays summary statistics of daily data for the 6-month interval 2 November 2020 through 30 April 2021. Results are based on the Dow Jones Industrial Average Index, which has identical components for the Dow Jones Industrial Average Total Return Index.

Exhibit 4 CEA Section 1a(25) Narrow-Based Index Tests for the Dow Jones Industrial Average Index

Quantiles of empirical distributions of daily measures of index characteristics, November 2, 2020 to April 30, 2021.

	Criterion (ii) Index weight of largest index component <i>(pct)</i>	Criterion (iii) Aggregate index weight of largest 5 index components <i>(pct)</i>	Criterion (iv) Trading volume of smallest index components aggregating to 25 pct of index weight <i>(\$ billions / day)</i>
	INDU	INDU	INDU
<i>Maximum</i>	8.38%	31.54%	\$25.94
<i>75 Pctl</i>	7.59%	29.92%	\$6.84
<i>Median</i>	7.42%	29.43%	\$5.75
<i>25 Pctl</i>	7.24%	29.04%	\$5.11
<i>Minimum</i>	6.78%	28.45%	\$2.14

Data Source: Bloomberg LLC

For criterion (ii), the share of Index weight occupied by the largest component stock, test results appear in the left-hand panel of Exhibit 4. 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 9 percent of index weight.

Similar results obtain for criterion (iii), shown in the middle panel of Exhibit 4. 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 32 percent of index weight.

Summary statistics for distributions of trading volume, shown in Exhibit 4'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 \$6 billion per day. The minimum observed daily trading volume is \$2.14 billion, which exceeds the test threshold by near 72 times.

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

The Contracts shall be subject to CME Rulebook Chapter 4, which includes prohibitions against fraudulent, noncompetitive, unfair, and abusive practices. Additionally, trading in the Contracts shall be subject to the Exchanges' trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. Trading activity in this Contracts 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 Contracts' underlying reference index 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 month.

As of June 4, 2021, the Russell 2000® Index and the Russell 2000® Total Return Index each comprised of the same 2,033 component stocks with approximate aggregate market capitalization of \$3.4 trillion. As of June 4, 2021, the Russell 1000® Index and the Russell 1000® Total Return Index each comprised of the same 1,019 component stocks with approximate aggregate market capitalization of \$42.1 trillion. As of June 4, 2021, the Nasdaq-100 Index® and the Nasdaq-100 Total Return Index® each comprised of the same 102 component stocks with approximate aggregate market capitalization of \$15.46 trillion. As of June 4, 2021, the Dow Jones Industrial Average Index and the Dow Jones Industrial Average Index Total Return each comprised of the same 30 component stocks with approximate aggregate market capitalization of \$10.11 trillion.

In conjunction with using the Russell 2000® Total Return Index, the Russell 1000® Total Return Index, the Nasdaq-100 Total Return Index® the Dow Jones Industrial Average Index Total Return the calculation will adjust for accrued interest using the Effective Federal Funds Rate (EFFR). Whether the Adjusted Interest Rate Russell 2000® Total Return Index Future is susceptible to manipulation rests partially on the integrity of the Effective Federal Funds Rate (EFFR). The EFFR benchmark is supported by a substantial and reliably active transaction pool. Moreover, the statistical measure employed to produce the benchmark value on any given day – the transaction-volume-weighted interquartile mean deposit rate -- is reasonably robust. EFFR is overseen by the Federal Reserve Bank of New York and has "...sufficient integrity to deflect attempted cornering, manipulation, crowding, or exertion of undue influence upon final settlement of expiring contracts."

The rate that the borrowing institution pays to the lending institution is determined between the two banks; the weighted average rate for all of these types of negotiations is called the effective federal funds rate. The effective federal funds rate is essentially determined by the market but is influenced by the Federal Reserve through open market operations to reach the federal funds rate target. The Federal Open Market Committee (FOMC) meets eight times a year to determine the federal funds target rate. As previously stated, this rate

influences the effective federal funds rate through open market operations or by buying and selling of government bonds (government debt).⁵

Specifically, the final settlement price of any expiring contract month is a Special Opening Quotation 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.

Core Principle 4 – Prevention of Market Disruption

The Contracts shall be subject to CME Rulebook Chapters 4 and 5, which include prohibitions on manipulation, price distortion, and disruption to the expiration and assignment process. The Contracts shall be subject to monitoring and surveillance by CME Group's Market Regulation Department.

The Contracts 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"⁶ 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 E-mini[®] Russell 2000[®] Index Futures contract (Commodity Code RTY) and Adjusted Interest Rate Russell 2000[®] Total Return Index Futures contract for the purpose of position limits, the futures product certified herein shall be subject to 120,000 net long or short E-mini[®] Russell 2000[®] Index Futures contract (Commodity Code RTY) across all contract months. For purpose of position limits, 5 long AIR Russell 2000[®] TRF offsets 1 short E-mini[®] Russell 2000[®] Index Futures (5 A2R : 1 RTY) and vice versa. There shall be a Position Reporting Level of 100 contracts. Both requirements are comparable to standards that apply to US equity index futures products currently listed for trading by the Exchanges.

To place the prescribed Position Limits in context, consider market conditions on June 3, 2021. With the closing value of the Russell 2000[®] Total Return Index at 2,279.248, the notional value of a hypothetical 600,000 (120,000 X 5) -contract limit position in AIR Russell 2000[®] TRF would have been approximately \$13.7 billion without accounting for the accrued financing component (equal to (2,279.248 Index points) x (\$10 per Index point per contract) x (120,000 contracts) x 5). This represents approximately 0.40% of the Index's closing market capitalization of \$3.4 trillion.

When considered collectively with positions in E-mini Russell 1000[®] Index Futures contract (Commodity Code RS1) and Adjusted Interest Rate Russell 1000[®] Total Return Index Futures contract for the purpose of position limits shall be subject to 120,000 net long or short E-mini Russell 1000[®] Index Futures (Commodity Code RS1) across all contract months. For purpose of position limits, 5 long AIR Russell 1000[®] TRF 1 short E-mini[®] Russell 1000[®] Index Futures (5 ARR : 1 RS1) and vice versa. There shall be a Position Reporting Level of 100 contracts. Both requirements are comparable to standards that apply to US equity index futures products currently listed for trading by the Exchanges.

To place the prescribed Position Limits in context, consider market conditions on June 3, 2021. With the closing value of the Russell 1000[®] Total Return Index at 2,355.899, the notional value of a hypothetical 140,000 (28,000 X 5) -contract limit position in AIR Russell 1000[®] TRF would have been approximately \$3.3 billion without accounting for the accrued financing component (equal to (2,355.899 Index points) x (\$10 per Index point per contract) x (28,000 contracts) x 5). This represents approximately 0.008% of the Index's closing market capitalization of \$42.1 trillion.

⁵ Federal Reserve Bank of New York. "Federal funds." Fedpoints, August 2007.

⁶ 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 E-mini NASDAQ 100 Index Futures contract (Commodity Code NQ) and Adjusted Interest Rate Nasdaq-100 Total Return Index[®] Futures contract for the purpose of position limits shall be subject to 250,000 net long or short E-mini NASDAQ 100 Index Futures (Commodity Code NQ) across all contract months. For purpose of position limits, 5 long AIR Nasdaq-100 TRF or 5 long Nasdaq-100 TRF offsets 1 short E-mini Nasdaq-100 Index[®] Futures (5 AQR : 1 NQ) 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 Exchanges.

To place the prescribed Position Limits in context, consider market conditions on June 3, 2021. With the closing value of the Nasdaq-100 Total Return Index[®] at 13,529.68, the notional value of a hypothetical 1,250,000 (250,000 X 5) -contract limit position in AIR Nasdaq-100 TRF would have been approximately \$169.1 billion without accounting for the accrued financing component (equal to (13,529.68 Index points) x (\$10 per Index point per contract) x (250,000 contracts) x 5). This represents approximately 1.09% of the Index's closing market capitalization of \$15.46 trillion.

When considered collectively with positions in CBOT[®] E-mini Dow Jones Industrial AverageTM Index Futures contract (Commodity Code YM) and Adjusted Interest Rate Dow Jones Industrial Average Total Return Futures contract for the purpose of position limits shall be subject to 100,000 net long or short DJIA 100 index futures across all contract months. For purpose of position limits, 2.5 long AIR DJIA offsets 1 short CBOT[®] E-mini Dow Jones Industrial AverageTM Index Futures contract (2.5 ADR : 1 YM) and vice versa. There shall be a Position Reporting Level of 200 contracts. Both requirements are comparable to standards that apply to US equity index futures products currently listed for trading by the Exchanges.

To place the prescribed Position Limits in context, consider market conditions on June 4, 2021. With the closing value of the Dow Jones Industrial Average Index at 34,756.39, the notional value of a hypothetical 500,000 (100,000 X 2.5 x 2) -contract limit position in AIR DJIA TRF would have been approximately \$17.38 billion without accounting for the accrued financing component (equal to (34,756.39 Index points) x (\$2 per Index point per contract) x (100,000 contracts) x 2.5). This represents approximately 0.17% of the Index's closing market capitalization of \$10.1 trillion.

Core Principle 7 – Availability of General Information

The Exchanges shall disseminate a Special Executive Report (“SER”) that sets forth information in regard to specifications, terms, and conditions of Contracts. The SER will also be posted on CME Group’s website.

Core Principle 8 – Daily Publication of Trading Information

The Exchanges shall publish contract trading volumes, open interest levels, and price information daily on its website and through quote vendors.

Core Principle 9 – Execution of Transactions

The Contracts 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 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.

Trading of AIR Russell 2000® TRF, the AIR Russell 1000® TRF, the AIR Nasdaq-100® TRF and the AIR DJIA TRF shall be negotiated using the Basis Trade at Index Close (BTIC) convention. 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:

$$\begin{aligned} &\text{Financing Spread Adjustment} \\ &= \text{Current Day's Index Value} * \text{BTIC Price} * (\text{Days To Maturity} / 360) \end{aligned}$$

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 Contracts shall be cleared by CME Clearing, which is registered with the Commission as a derivatives clearing organization.

Core Principle 12 – Protection of Markets and Market Participants

CME and CBOT 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 Exchanges' competitive trading venues and will apply to transactions in the Contracts.

Core Principle 13 – Disciplinary Procedures

CME and CBOT Rulebook Chapter 4 provides for the Exchanges to discipline, suspend, or expel members or market participants who violate the rules of the Exchanges. Trading in the Contracts shall be subject to these provisions. The Exchanges' 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 Contracts 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 Exchanges. 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 Exchanges require members to resolve via arbitration all disputes concerning transactions on the Exchanges.

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

The Exchanges certify that this submission has been concurrently posted on the Exchanges' website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments: Appendix A CME Rulebook Chapters 372, 373, 374 and CBOT Rulebook Chapter 33
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

CME Chapter 373

Adjusted Interest Rate Russell 2000® Total Return Index Futures

37300. SCOPE OF CHAPTER

This chapter is limited in application to Adjusted Interest Rate Russell 2000® Total Return Index futures (“AIR Russell 2000® TRF” or “futures”).

The AIR Russell 2000® TRF valuation has three components; an equity index component, a daily Benchmark financing component and a financing spread adjustment component.

$$\text{AIR Russell 2000}^{\circledR} \text{ TRF} = (\text{Equity Index} - \text{Accrued Financing}) + \text{Financing Spread Adjustment}$$

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.

37300.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.

37300.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).

37300.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.

37301. CONTRACT SPECIFICATIONS

The contract structure is subject to the following definitions:

1. Definitions

- a. **Equity Index** shall mean Russell 2000® Total Return Index (“RU20INTR Index”, “RU20INTR” 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 FTSE International Limited (FTSE) 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:

$$\text{Previous Business day's Index Close} \times \text{Daily Financing Period} \times \text{Benchmark Funding Reference Rate}$$
 - 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:

$$\text{Index Close (of Current Business Day)} \times \text{TRF Spread Price} \times \text{Time to Maturity}$$
2. For purpose of this chapter, **Pricing Formula** shall mean the following formula:

$$\text{Equity Index} - \text{Accrued Financing} + \text{Financing Spread Adjustment}$$
3. For trades pursuant to 37306. 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.

37302. TRADING SPECIFICATIONS

37302.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 Russell 2000 Index futures pursuant to Rule 39302.I.

37302.B. Trading Unit

The unit of trading shall be \$10.00 times the Adjusted Interest Rate Russell 2000® Total Return Index Futures.

37302.C. Price Increments

The price for the AIR Russell 2000® TRF shall be in index points. The minimum price fluctuation shall be 0.01 index points.

The quoting notation for the AIR Russell 2000® TRF Spread will be expressed in basis points and shall be transacted via BTIC (rule 37306). The minimum price fluctuation shall be 0.5 basis points.

37302.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

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

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

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

37302.E. [Reserved]

37302.F. [Reserved]

37302.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 37303.A.) for such futures.

37302.H. [Reserved]

37302.I. Price Limits and Trading Halts

There shall be no trading of AIR Russell 2000[®] TRF when trading is restricted as set forth in Rule 39300.C.

37303. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

37303.A. Final Settlement Price

For a futures contract for a given delivery month, the Final Settlement Price shall be determined based on using the Pricing Formula, with the special opening quotation of the Russell 2000[®] Total Return Index (RU20INTR SOQ) in place of the Index Close. For the avoidance of doubt, the Final Settlement Price shall be

RU20INTR 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.

37303.B. Final Settlement

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 37302.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 37303.A.).

37304. [RESERVED]

37305. [RESERVED]

37306. BASIS TRADE AT INDEX CLOSE (“BTIC”) TRANSACTIONS

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

37306.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.

37306.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 37301.

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.

37306.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.

37306.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 37306 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 37302. of this Chapter, or in BTIC terms, pursuant to Rules 524.B. and Rules 37306. of this Chapter.

37306.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 E-mini® Russell 2000® Index Futures, such BTIC transactions shall be cancelled.

(End Chapter 373)

DISCLAIMER

Neither Frank Russell Company’s publication of the Russell Indexes nor its licensing of its trademarks for use in connection with securities or other financial products derived from a Russell Index in any way

suggests or implies a representation or opinion by Frank Russell Company as to the attractiveness of investment in any securities or other financial products based upon or derived from any Russell Index. Frank Russell Company is not the issuer of any such securities or other financial products and makes no express or implied warranties of merchantability or fitness for any particular purpose with respect to any Russell Index or any data included or reflected therein, nor as to results to be obtained by any person or any entity from the use of the Russell Index or any data included or reflected therein.

CME Chapter 372 Adjusted Interest Rate Russell 1000[®] Total Return Index Futures

37200. SCOPE OF CHAPTER

This chapter is limited in application to Adjusted Interest Rate Russell 1000[®] Total Return Index futures (“AIR Russell 1000[®] TRF” or “futures”).

The AIR Russell 1000[®] TRF valuation has three components; an equity index component, a daily Benchmark financing component and a financing spread adjustment component.

$$\text{AIR Russell 1000}^{\text{®}} \text{ TRF} = (\text{Equity Index} - \text{Accrued Financing}) + \text{Financing Spread Adjustment}$$

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.

37200.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.

37200.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).

37200.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.

37201. CONTRACT SPECIFICATIONS

The contract structure is subject to the following definitions:

1. Definitions

- a. **Equity Index** shall mean Russell 1000[®] Total Return Index (“RU10INTR Index”, “RU10INTR” 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 FTSE International Limited (FTSE) 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:

$$\text{Previous Business day's Index Close} \times \text{Daily Financing Period} \times \text{Benchmark Funding Reference Rate}$$
 - 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:

$$\text{Index Close (of Current Business Day)} \times \text{TRF Spread Price} \times \text{Time to Maturity}$$
2. For purpose of this chapter, **Pricing Formula** shall mean the following formula:

$$\text{Equity Index} - \text{Accrued Financing} + \text{Financing Spread Adjustment}$$
3. For trades pursuant to 37206. 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.

37202. TRADING SPECIFICATIONS

37202.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 Russell 1000 Index futures pursuant to Rule 38302.I.

37202.B. Trading Unit

The unit of trading shall be \$10.00 times the Adjusted Interest Rate Russell 1000[®] Total Return Index Futures.

37202.C. Price Increments

The price for the AIR Russell 1000[®] TRF shall be in index points. The minimum price fluctuation shall be 0.01 index points.

The quoting notation for the AIR Russell 1000[®] TRF Spread will be expressed in basis points and shall be transacted via BTIC (rule 37206). The minimum price fluctuation shall be 0.5 basis points.

37202.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

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

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

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

37202.E. [Reserved]

37202.F. [Reserved]

37202.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 37203.A.) for such futures.

37202.H. [Reserved]

37202.I. Price Limits and Trading Halts

There shall be no trading of AIR Russell 1000[®] TRF when trading is restricted as set forth in Rule 38300.C.

37203. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

37203.A. Final Settlement Price

For a futures contract for a given delivery month, the Final Settlement Price shall be determined based on using the Pricing Formula, with the special opening quotation of the Russell 1000[®] Total Return Index (RU10INTR SOQ) in place of the Index Close. For the avoidance of doubt, the Final Settlement Price shall be

RU10INTR 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.

37203.B. Final Settlement

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 37202.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 37203.A.).

37204. [RESERVED]

37205. [RESERVED]

37206. BASIS TRADE AT INDEX CLOSE (“BTIC”) TRANSACTIONS

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

37206.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.

37206.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 37201.

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.

37206.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.

37206.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 37206 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 37202. of this Chapter, or in BTIC terms, pursuant to Rules 524.B. and Rules 37206. of this Chapter.

37206.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 E-mini® Russell 1000® Index Futures, such BTIC transactions shall be cancelled.

(End Chapter 372)

DISCLAIMER

Neither Frank Russell Company’s publication of the Russell Indexes nor its licensing of its trademarks for use in connection with securities or other financial products derived from a Russell Index in any way suggests or implies a representation or opinion by Frank Russell Company as to the attractiveness of investment in any securities or other financial products based upon or derived from any Russell Index.

Frank Russell Company is not the issuer of any such securities or other financial products and makes no express or implied warranties of merchantability or fitness for any particular purpose with respect to any Russell Index or any data included or reflected therein, nor as to results to be obtained by any person or any entity from the use of the Russell Index or any data included or reflected therein.

CME Chapter 374

Adjusted Interest Rate Nasdaq-100 Total Return Index[®] Futures

37400. SCOPE OF CHAPTER

This chapter is limited in application to Adjusted Interest Rate Nasdaq-100 Total Return Index[®] futures (“AIR Nasdaq-100TRF” or “futures”).

The AIR Nasdaq-100 TRF valuation has three components; an equity index component, a daily Benchmark financing component and a financing spread adjustment component.

$$\text{AIR Nasdaq-100 TRF} = (\text{Equity Index} - \text{Accrued Financing}) + \text{Financing Spread Adjustment}$$

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.

37400.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.

37400.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).

37400.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.

37401. CONTRACT SPECIFICATIONS

The contract structure is subject to the following definitions:

1. Definitions
 - a. **Equity Index** shall mean Nasdaq-100 Total Return Index[®] (“XNDX Index”, “XNDX” 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 Nasdaq, 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:

$$\text{Previous Business day's Index Close} \times \text{Daily Financing Period} \times \text{Benchmark Funding Reference Rate}$$
 - 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:

$$\text{Index Close (of Current Business Day)} \times \text{TRF Spread Price} \times \text{Time to Maturity}$$
2. For purpose of this chapter, **Pricing Formula** shall mean the following formula:

$$\text{Equity Index} - \text{Accrued Financing} + \text{Financing Spread Adjustment}$$
3. For trades pursuant to 37406. 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.

37402. TRADING SPECIFICATIONS

37402.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 Nasdaq-100 Index[®] futures pursuant to Rule 35902.I.

37402.B. Trading Unit

The unit of trading shall be \$10.00 times the Adjusted Interest Rate Nasdaq-100 Total Return Index[®] Futures.

37402.C. Price Increments

The price for the AIR Nasdaq-100 TRF shall be in index points. The minimum price fluctuation shall be 0.01 index points.

The quoting notation for the AIR Nasdaq-100 TRF Spread will be expressed in basis points and shall be transacted via BTIC (rule 37406). The minimum price fluctuation shall be 0.50 basis points.

37402.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

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

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

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

37402.E. [Reserved]

37402.F. [Reserved]

37402.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 37403.A.) for such futures.

37402.H. [Reserved]

37402.I. Price Limits and Trading Halts

There shall be no trading of AIR Nasdaq-100 TRF when trading is restricted as set forth in Rule 35900.C.

37403. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

37403.A. Final Settlement Price

For a futures contract for a given delivery month, the Final Settlement Price shall be determined based on using the Pricing Formula, with the special opening quotation of the Nasdaq-100 Total Return Index[®] (XNDX SOQ) in place of the Index Close. For the avoidance of doubt, the Final Settlement Price shall be

XNDX 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.

37403.B. Final Settlement

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 37402.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 37403.A.).

37404. [RESERVED]

37405. [RESERVED]

37406. BASIS TRADE AT INDEX CLOSE (“BTIC”) TRANSACTIONS

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

37406.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.

37406.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 37401.

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.

37406.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.

37406.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 37406 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 37402. of this Chapter, or in BTIC terms, pursuant to Rules 524.B. and Rules 37406. of this Chapter.

37406.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 Nasdaq-100 Total Return Index[®], such BTIC transactions shall be cancelled.

(End Chapter 374)

DISCLAIMER

E-mini Nasdaq-100 Index Futures and Options on Nasdaq-100 Index Futures (Products) are not sponsored, endorsed, sold or promoted by the Nasdaq Stock Market, Inc. (including its affiliates) (Nasdaq, with its affiliates, are referred to as the Corporations). The Corporations have not passed on the legality

or suitability of, or the accuracy or adequacy of descriptions and disclosures relating to, the Products. The Corporations make no representation or warranty, express or implied, to the holder of any position in the Products or any member of the public regarding the advisability of investing in financial instruments generally or in the Products particularly, or the ability of the Nasdaq-100 Index to track general stock market performance. The Corporations' only relationship to Chicago Mercantile Exchange Inc. (Licensee) is in the licensing of certain trademarks, service marks, and trade names of the Corporations and the use of the Nasdaq-100 Index, which is determined, composed and calculated by Nasdaq without regard to Licensee or the Products. Nasdaq has no obligation to take the needs of the Licensee or the holder of any position in the Products into consideration in determining, composing or calculating the Nasdaq-100 Index. The Corporations are not responsible for and have not participated in the determination or calculation of the equation by which the Products are to be converted into cash, in the case of Nasdaq-100 Futures, or futures contracts, in the case of Options on Nasdaq-100 Futures. The Corporations have no liability in connection with the administration, marketing or trading of the Products.

THE CORPORATIONS DO NOT GUARANTEE THE ACCURACY AND/OR UNINTERRUPTED CALCULATION OF THE NASDAQ 100 INDEX OR ANY DATA INCLUDED THEREIN. THE CORPORATIONS MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE RESULTS TO BE OBTAINED BY ANY PERSON OR ENTITY FROM THE USE OF THE NASDAQ 100 INDEX, ANY OPENING, INTRA-DAY, OR CLOSING VALUE THEREOF, OR ANY DATA INCLUDED THEREIN, OR RELATING THERETO, IN CONNECTION WITH THE TRADING OF E-MINI NASDAQ 100 FUTURES OR OPTIONS ON E-MINI NASDAQ 100 FUTURES OR FOR ANY OTHER PURPOSE. THE CORPORATIONS MAKE NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE NASDAQ 100 INDEX, ANY OPENING, INTRA-DAY, OR © Copyright Chicago Mercantile Exchange, Inc. All rights reserved. Page 6 of 6 CLOSING VALUE THEREOF, OR ANY DATA INCLUDED THEREIN OR RELATED THERETO, OR ANY E- MINI NASDAQ 100 FUTURES CONTRACT OR OPTION ON A E-MINI NASDAQ 100 FUTURES CONTRACT. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL THE CORPORATIONS HAVE ANY LIABILITY FOR ANY SPECIAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

CBOT Rulebook

Chapter 33

Adjusted Interest Rate Dow Jones Industrial Average™ Total Return Index Futures

3300. SCOPE OF CHAPTER

This chapter is limited in application to Adjusted Interest Rate Dow Jones Industrial Average™ Total Return Index futures (“AIR DJIA TRF” or “futures”).

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

$$\text{AIR DJIA TRF} = (\text{Equity Index} - \text{Accrued Financing}) + \text{Financing Spread Adjustment}$$

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.

3300.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.

3300.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).

3300.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.

3301. CONTRACT SPECIFICATIONS

The contract structure is subject to the following definitions:

1. Definitions

- a. **Equity Index** shall mean DJIA Total Return Index™ (“DJITR” Index”, “DJITR” 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:

$$\text{Previous Business day's Index Close} \times \text{Daily Financing Period} \times \text{Benchmark Funding Reference Rate}$$
 - 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:

$$\text{Index Close (of Current Business Day)} \times \text{TRF Spread Price} \times \text{Time to Maturity}$$
2. For purpose of this chapter, **Pricing Formula** shall mean the following formula:

$$\text{Equity Index} - \text{Accrued Financing} + \text{Financing Spread Adjustment}$$
3. For trades pursuant to 3306. 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.

3302. TRADING SPECIFICATIONS

3302.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 CBOT® E-mini Dow Jones Industrial AverageSM Index Futures pursuant to Rule 27102.I.

3302.B. Trading Unit

The unit of trading shall be \$2.00 times the Adjusted Interest Rate DJIA Total Return Futures.

3302.C. Price Increments

The price for the AIR DJIA TRF shall be in index points. The minimum price fluctuation shall be 0.01 index points.

The quoting notation for the AIR DJIA TRF Spread will be expressed in basis points and shall be transacted via BTIC (rule 3306). The minimum price fluctuation shall be 0.50 basis points.

3302.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

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

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

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

3302.E. [Reserved]

3302.F. [Reserved]

3302.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 3303.A.) for such futures.

3302.H. [Reserved]

3302.I. Price Limits and Trading Halts

There shall be no trading of AIR DJIA TRF when trading is restricted as set forth in Rule 27100.C.

3303. SETTLEMENT PROCEDURES

Delivery shall be by cash settlement.

3303.A. Final Settlement Price

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

DJITR 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.

3303.B. Final Settlement

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 3302.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 3303.A.).

3304. [RESERVED]

3305. [RESERVED]

3306. BASIS TRADE AT INDEX CLOSE (“BTIC”) TRANSACTIONS

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

3306.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.

3306.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 3301.

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.

3306.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.

3306.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 3306 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 3302. of this Chapter, or in BTIC terms, pursuant to Rules 524.B. and Rules 3306. of this Chapter.

3306.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 DJIA Total Return Index, such BTIC transactions shall be cancelled.

(End Chapter 33)

DISCLAIMER

CBOT E-mini Dow futures and futures options contracts are not sponsored, endorsed, sold or promoted by Dow Jones. Dow Jones makes no representation or warranty, express or implied, to the owners of CBOT Emini Dow futures and futures options contracts or any member of the public regarding the advisability of trading in E-mini Dow futures and futures options contracts. Dow Jones' only relationship to the Exchange is the licensing of certain trademarks and trade names of Dow Jones and of the DJIA which is determined, composed and calculated by Dow Jones without regard to the Chicago Board of Trade or CBOT E-mini futures and futures options contracts. Dow Jones has no obligation to take the needs of the Chicago Board of Trade or the owners of CBOT mini-sized Dow futures and futures options

contracts into consideration in determining, composing or calculating the DJIA. Dow Jones is not responsible for and has not participated in the determination of the timing of, prices of, or quantities of CBOT E-mini Dow futures and futures options contracts to be listed or in the determination or calculation of the equation by which CBOT E-mini Dow futures and futures options contracts are to be converted into cash. Dow Jones has no obligation or liability in connection with the administration, marketing or trading of the CBOT E-mini Dow futures and futures options contracts.

DOW JONES DOES NOT GUARANTEE THE ACCURACY AND/OR THE COMPLETENESS OF THE DJIA OR ANY DATA INCLUDED THEREIN AND DOW JONES SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INTERRUPTIONS THEREIN. DOW JONES MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO RESULTS TO BE OBTAINED BY THE CHICAGO BOARD OF TRADE, OWNERS OF CBOT MINI-SIZED DOW FUTURES AND FUTURES OPTIONS CONTRACTS, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE DJIA OR ANY DATA INCLUDED THEREIN. DOW JONES MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE DJIA OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL DOW JONES HAVE ANY LIABILITY FOR ANY LOST PROFITS OR INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. THERE ARE NO THIRD PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN DOW JONES AND THE CHICAGO BOARD OF TRADE.

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)

Instrument	Globex Symbol	Outrights			Spreads	
		Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Minimum Ticks	NRR: Globex Format	NRR: Minimum Ticks
<u>BTIC on Adjusted Interest Rate Russell 1000 Total Return Index Futures</u>	<u>ART</u>	<u>5 index points</u>	<u>500</u>	<u>50</u>	<u>N/A</u>	<u>N/A</u>
<u>BTIC on Adjusted Interest Rate Russell 2000 Total Return Index Futures</u>	<u>A2T</u>	<u>5 index points</u>	<u>500</u>	<u>50</u>	<u>N/A</u>	<u>N/A</u>
<u>BTIC on Adjusted Interest Rate Nasdaq-100 Total Return Index Futures</u>	<u>AQT</u>	<u>5 index points</u>	<u>500</u>	<u>50</u>	<u>N/A</u>	<u>N/A</u>
<u>BTIC on Adjusted Interest Rate Dow Jones Industrial Average Index Total Return Futures</u>	<u>ADT</u>	<u>25 Index points</u>	<u>2500</u>	<u>50</u>	<u>N/A</u>	<u>N/A</u>

Appendix D

CME Rulebook

Chapter 5

(“Trading Qualifications and Practices”)

Rule 589. – (“Special Price Fluctuation Limits and Price Limits”) Table

(additions underlined)

Product	Rulebook	Commodity Code	PRIMARY/ASSOCIATED	ASSOCIATED WITH	Daily Price Limit
<u>BTIC on Adjusted Interest Rate Russell 1000 Total Return Index Futures</u>	<u>372</u>	<u>ART</u>	<u>Associated</u>	<u>RS1</u>	<u>Daily Price Limit Table</u>
<u>BTIC on Adjusted Interest Rate Russell 2000 Total Return Index Futures</u>	<u>373</u>	<u>A2T</u>	<u>Associated</u>	<u>RTY</u>	<u>Daily Price Limit Table</u>
<u>BTIC on Adjusted Interest Rate Nasdaq-100 Total Return Index Futures</u>	<u>374</u>	<u>AQT</u>	<u>Associated</u>	<u>NQ</u>	<u>Daily Price Limit Table</u>
<u>BTIC on Adjusted Interest Rate Dow Jones Industrial Average Index Total Return Futures</u>	<u>33</u>	<u>ADT</u>	<u>Associated</u>	<u>YM</u>	<u>Daily Price Limit Table</u>

Appendix E

Exchange Fees

CME FEES

Adjusted Interest Rate Russell 2000 Total Return Index Futures

Adjusted Interest Rate Russell 1000 Total Return Index Futures

Adjusted Interest Rate Nasdaq-100 Total Return Index Futures

Membership Type	Venue/Transaction Type	Futures fewer than 24 months to expiration	Futures between 24 and 59 months to expiration	Futures 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		
	CME Globex	\$1.84	\$3.68	\$7.36
	EFP EFR Block BTIC	\$1.84	\$3.68	\$7.36
Rule 106.D Lessees Rule 106.F Employees	Delivery	\$0.21		
	CME Globex	\$1.96	\$3.92	\$7.84
	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	\$2.14	\$4.28	\$8.56
	CME Globex - BTIC	\$2.14	\$4.28	\$8.56
Rule 106.H and 106.N Firms Clearing Non-Equity Member Firms	Delivery	\$0.39		
	CME Globex	\$2.14	\$4.28	\$8.56
	EFP EFR Block BTIC	\$2.14	\$4.28	\$8.56
International Incentive Program (IIP) and International Volume Incentive Program (IVIP) Participants	CME Globex	\$2.15	\$4.30	\$8.60
	CME Globex-BTIC	\$2.15	\$4.30	\$8.60

(For other than CME Globex - Non-Member rates apply)				
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 – Outrights	\$2.15	\$4.30	\$8.60
	CME Globex – Spreads	\$2.15	\$4.30	\$8.60
	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	\$0.40		
	CME Globex – Outright	\$2.15	\$4.30	\$8.60
	CME Globex – Spread	\$2.15	\$4.30	\$8.60
	EFP EFR Block BTIC	\$2.15	\$4.30	\$8.60
Non-Members	Delivery	\$0.40		
	CME Globex – Outright	\$2.15	\$4.30	\$8.60
	CME Globex - Spread	\$2.15	\$4.30	\$8.60
	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

CBOT FEES

Adjusted Interest Rate Dow Jones Industrial Average Total Return Index Futures

Level	Account Owner	Execution Type	Venue/Transaction Type	Futures fewer than 24 months to expiration	Futures between 24 and 59 months to expiration	Futures executed with 60+ months to expiration

Individual Member						
1	Individual Members	Member Account Owner	CME Globex	\$1.84	\$3.68	\$7.36
			EFP	\$1.84	\$3.68	\$7.36
			EFR	\$1.84	\$3.68	\$7.36
			Block/BTIC	\$1.84	\$3.68	\$7.36
	Individual Delegates	Delegate Trading Own Account	CME Globex	\$1.90	\$3.80	\$7.60
			EFP	\$1.90	\$3.80	\$7.60
			EFR	\$1.90	\$3.80	\$7.60
			Block/BTIC	\$1.90	\$3.80	\$7.60
2	Equity Members ⁷	Member or Delegate	CME Globex	\$1.84	\$3.68	\$7.36
			EFP	\$1.84	\$3.68	\$7.36
			EFR	\$1.84	\$3.68	\$7.36
			Block/BTIC	\$1.84	\$3.68	\$7.36
		Non-Member	CME Globex	\$1.90	\$3.80	\$7.60
			EFP	\$1.90	\$3.80	\$7.60
			EFR	\$1.90	\$3.80	\$7.60
			Block/BTIC	\$1.90	\$3.80	\$7.60
	Rule 106.S. Family of Funds Equity Member Firms	Member, Delegate or Non-Member	CME Globex	\$1.90	\$3.80	\$7.60
			EFP	\$1.90	\$3.80	\$7.60
			EFR	\$1.90	\$3.80	\$7.60
			Block/BTIC	\$1.90	\$3.80	\$7.60

1

(Execution Not a Factor in Membership Types Below)

Level	Account Owner	Execution Type	Venue/Transaction Type	Futures*	Futures**	Futures***
Trading Members (Individual Non-Equity Members and Non-Equity Member Firms)						
3	Individual Non-Equity Members (other member/delegate executing); Rule 106.H. Corporate Trading Firms; Rule 106.H. Trading FCMs; & Rule 106.I. Affiliate Trading Member Firms	Member, Delegate or Non-Member	CME Globex	\$1.92	\$3.84	\$7.68
			EFP	\$1.92	\$3.84	\$7.68
			EFR	\$1.92	\$3.84	\$7.68
			Block/BTIC	\$1.92	\$3.84	\$7.68
	Individual Delegates (Other Member or Delegate executing the	Member, Delegate or Non-Member	CME Globex	\$1.94	\$3.88	\$7.76
			EFP	\$1.94	\$3.88	\$7.76

⁷ Clearing Closely Held Corporate Members & Sole Proprietors, Rule 106.J. Equity Closely Held Corporate Members & Rule 106.I. Affiliate Equity Member Firms, Individual Equity Members (other member/delegate executing), Clearing FCMs, Rule 106.J. Equity FCMs, Clearing Corporate Members, Rule 106.J. Equity Corporate Members & Rule 106.I. Affiliate Equity Member Firm (Affiliate of Clearing FCM, Clearing Corporate Member or Rule 106.J Equity FCM or Equity Corporate Member), Rule 106.I. Affiliate Membership Umbrella - Qualified Affiliate - Unlimited Number of Affiliates.

	trade) & Rule 106.I. Affiliate Trading Member Firms		EFR	\$1.94	\$3.88	\$7.76
			Block/BTIC	\$1.94	\$3.88	\$7.76
	Rule 106.S. Family of Funds Trading Member Firms	Member, Delegate or Non-Member	CME Globex	\$1.92	\$3.84	\$7.68
			EFP	\$1.92	\$3.84	\$7.68
			EFR	\$1.92	\$3.84	\$7.68
			Block/BTIC	\$1.92	\$3.84	\$7.68

Level	Account Owner	Execution Type	Venue/Transaction Type	Futures*	Futures**	Futures***
Electronic Corporate Member Firm						
4	Rule 106.R Electronic Corporate Member Firms (For other than CME Globex - Non-Member rates apply)	Member, Delegate or Non-Member	CME Globex - BTIC	\$1.94	\$3.88	\$7.76
5	International Incentive Program (IIP) and International Volume Incentive Program (IVIP) Participants (Open Outcry at same rate as CME Globex for Interest Rate products only)	Member, Delegate or Non-Member	CME Globex	\$2.15	\$4.30	\$8.60
			EFP/EFR/Block/BTIC	\$2.15	\$4.30	\$8.60
	Central Bank Incentive Program (CBIP) and Latin American Fund Manager Incentive Program (FMIP) Participants (For other than CME Globex - Non-Member rates apply)	Member, Delegate or Non-Member	CME Globex	\$2.15	\$4.30	\$8.60
			EFP/EFR/Block/BTIC	\$2.15	\$4.30	\$8.60
	Non-Members	N/A	CME Globex	\$2.15	\$4.30	\$8.60
			EFP	\$2.15	\$4.30	\$8.60
			EFR	\$2.15	\$4.30	\$8.60
			Block	\$2.15	\$4.30	\$8.60

Processing Fees	Fee
Exchange Fees for Non-Trades (Member/Delegate/Non-Member)	\$0.10/\$0.25/\$0.55
Exchange Fees for Non-Trades - Expired Options	\$0.10
Facilitation Fee	\$0.40
Give-Up Surcharge	\$0.06
Position Adjustment/Position Transfer	\$0.10