

## Chapter 357C

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

#### 357C00. SCOPE OF CHAPTER

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

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

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

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.

##### 357C00.A. Market Decline

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

##### 357C00.B. Primary Listing Exchange

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

##### 357C00.C. Regulatory Halt

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

#### 357C01. CONTRACT SPECIFICATIONS

The contract structure is subject to the following definitions:

##### 1. Definitions

- a. **Equity Index** shall mean S&P 500 Total Return Index ("SPTR Index", "SPTR" or "Index");
- 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 Secured Overnight Financing Rate (SOFR) published by the Federal Reserve Bank of New York on the current business day of the value on the previous business day, expressed on per annum basis;
- e. **Cash Market Settlement Day** shall mean the settlement day of an equity trade corresponding to a trading day, as scheduled by the DTCC;
- f. **Daily Financing Period** shall mean the length of time in years between the Cash Market Settlement Day of the previous business day and the Cash Market Settlement Day of the current day, using the ACT/360 day count convention;
- g. **Time to Maturity** shall mean the length of time between the Cash Market Settlement Day of the current day and the Cash Market Settlement Day of the day of final settlement price determination of the contract, expressed in years using the ACT/360 day count convention;

- h. **Daily Financing Amount** shall mean the following value:  

$$\text{Previous Business day's Index Close} \times \text{Daily Financing Period} \times \text{Benchmark Funding Reference Rate}$$
  - 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 357C06. BTIC Transactions, the Exchange shall apply the Pricing Formula to trades consummated using TRF Spread Prices to determine the Absolute Price, subject to rounding to the nearest Price Increment. For trades pursuant to Exchanges For Related Positions, trade counterparties shall submit to CME Clearing the Absolute Price agreed upon by the counterparties.

## 357C02. TRADING SPECIFICATIONS

### 357C02.A. Trading Schedule

Futures contracts shall be scheduled for trading during such hours and for delivery in such months as may be determined by the Exchange, provided that there shall be no trading in futures contracts when trading is halted in the Primary Futures Contract Month for E-mini Standard and Poor's 500 Stock Price Index futures pursuant to Rule 35802.1.

### 357C02.B. Trading Unit

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

### 357C02.C. Price Increments

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

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

### 357C02.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

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

A person seeking an exemption from position limits for bona 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.

### 357C02.E. [Reserved]

### 357C02.F. [Reserved]

### 357C02.G. Termination of Trading

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

If an unscheduled Market Holiday is declared on the day of Final Settlement Price determination (Rule 357C03.A), trading in the expiring futures shall terminate at the close of trading on the New York Stock Exchange on the immediately preceding Business Day.

**357C02.H. [Reserved]**

**357C02.I. Price Limits and Trading Halts**

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

**357C03. SETTLEMENT PROCEDURES**

Delivery shall be by cash settlement.

**357C03.A. Final Settlement Price**

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

**SPTR SOQ – Accrued Financing on Day of Final Settlement Price Determination**

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

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

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

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

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

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

**357C03.B. Final Settlement**

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

**357C04. [RESERVED]**

**357C05. [RESERVED]**

**357C06. BASIS TRADE AT INDEX CLOSE (“BTIC”) TRANSACTIONS**

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

**357C06.A. BTIC Block Trade Requirements**

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

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

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

#### **357C06.B. BTIC Price Assignment Procedures**

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

#### **357C06.C. BTIC Minimum Price Increments**

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

#### **357C06.D. Market Disruption Events**

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

#### **357C06.E. [Reserved]**

(End Chapter 357C)

### **INTERPRETATIONS & SPECIAL NOTICES RELATING TO CHAPTER 357C**

#### **1. Trading Specifications**

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

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

#### **DISCLAIMER**

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