

Adjusted Interest Rate (AIR) Total Return Futures Explained

TOTAL RETURN EXPOSURE WITH A BUILT-IN FLOATING RATE

Adjusted Interest Rate (AIR) Total Return futures on U.S. indices are designed to give you total return exposure with an Effective Fed Funds Rate (EFFR) overnight floating rate built in. The enhanced contract design provides similar economics to an equity index total return swap with the margin efficiency of listed futures.

AIR S&P 500 Total Return futures are now also available based on SOFR (Secured Overnight Financing Rate).

- Available on S&P 500 (SPTR), Nasdaq-100 (XNDX), Russell 1000 (RU10INTR), Russell 2000 (RU20INTR), DJIA Total Return Index (DJITR) and FTSE 100 Total Return Index (UKXDUK)
- Delivers total return equity swap exposure with the margin efficiency of futures
- Overnight financing rate is based on EFFR or SOFR
- Includes a floating rate set to a term reference rate
- Trades via spread-quoted Basis Trade at Index Close (BTIC) transactions only (CME Globex and ex-pit), with a minimum block size of 500

How AIR Total Return futures work

The AIR TRF has a maturity at a known date, and its valuation has three components: an equity index component; a benchmark financing component that accrues daily; and a financing spread adjustment component.

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

- 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, as the trade is transacted via Basis Trade at Index Close (BTIC)¹.
- 2) **Accrued Financing component** – the sum of the daily accrued financing (AF). In an equity swap, the accrued financing amount is exchanged at each reset date as a cash flow; in the AIR TRF, the financing amount is accrued daily based upon the benchmark reference rate (e.g. the Effective Fed Funds Rate, EFFR) and the sum is incorporated into the daily settlement of the product.

- 3) **Financing Spread Adjustment** – when trading the AIR TRF, the counterparties will agree to lock in a spread +/- to the reference rate (TRF Spread) for the remaining maturity of the product. The spread rate will be determined primarily by the rebate value the market ascribes to the value of the underlying stocks in the index. Thus, the TRF spread is equivalent to the spread that would be charged above or below the reference rate in an equity index swap.

FIGURE 1: AIR TRF MECHANICS

Buyer receives SPTR equity index returns (includes dividends within the index) minus EFFR funding.



Buyer pays TRF Spread % amount.

¹ The only exception is trading the futures contract via an EFRP, where the future price level is specified directly.

AIR Total Return futures quoting and trading notation

Market participants will trade the TRF spread price (st) directly (see "Settlement procedures" in the contract specifications section). The quoting notation will be the TRF spread expressed in basis points (rather than index points). The TRF spread will be available to trade in 0.5 basis point increments. Once the TRF spread is consummated, it will be converted into an AIR TRF price by the exchange. The resulting cleared price of the future is computational and occurs on a trade by trade basis.

Trading mechanism

Tradable via spread-quoted BTIC only (CME Globex and ex-pit). Minimum block size 500.

CONTRACT SPECIFICATIONS

| CONTRACT NAME | ADJUSTED INTEREST RATE S&P 500 TOTAL RETURN (EFFR) FUTURES | ADJUSTED INTEREST RATE NASDAQ-100 TOTAL RETURN (EFFR) FUTURES | ADJUSTED INTEREST RATE RUSSELL 1000 TOTAL RETURN FUTURES | ADJUSTED INTEREST RATE RUSSELL 2000 TOTAL RETURN FUTURES | ADJUSTED INTEREST RATE DOW JONES INDUSTRIAL AVERAGE TOTAL RETURN FUTURES | ADJUSTED INTEREST RATE S&P 500 TOTAL RETURN (SOFR) FUTURES |
|---------------------------|--|--|--|--|--|--|
| CONTRACT UNIT | \$25 x S&P 500 AIR Total Return Index Price | \$10 x Nasdaq-100 AIR Total Return Index Price | \$10 x Russell 1000 AIR Total Return Index Price | \$10 x Russell 2000 AIR Total Return Index Price | \$2 x DJIA AIR Total Return Index Price | \$25 x S&P 500 AIR Total Return Index Price |
| UNDERLYING INDEX | S&P 500 Total Return Index (SPTR) | Nasdaq 100 Total Return Index (XNDX) | Russell 1000 Total Return Index (RU10INTR) | Russell 2000 Total Return Index (RU20INTR) | DJIA Total Return Index (DJITR) | S&P 500 Total Return Index (SPTR) |
| REFERENCE RATE | Effective Fed Funds Rate (EFFR) | | | | | Secured Overnight Financing Rate (SOFR) |
| TRADING QUOTATION | TRF spread in basis points expressed as an annualized number | | | | | |
| TRADING HOURS | CME Globex: BTIC: Sunday - Friday 6:00 p.m. - 4:00 p.m. Eastern Time (ET) ClearPort: BTIC: Sunday - Friday 6:00 p.m. - 4:00 p.m. ET | | | | | |
| MINIMUM PRICE FLUCTUATION | 0.5 Basis Points in terms of TRF Spread The resultant cleared AIR TRF future price will be rounded to 2 decimals. | | | | | |
| PRODUCT CODE* | CME Globex: ASR CME ClearPort: ASR Clearing: ASR BTIC: AST | CME Globex: AQR* CME ClearPort: AQR* Clearing: AQR* BTIC: AQT | CME Globex: ARR* CME ClearPort: ARR* Clearing: ARR* BTIC: ART | CME Globex: A2R* CME ClearPort: A2R* Clearing: A2R* BTIC: A2T | CME Globex: ADR* CME ClearPort: ADR* Clearing: ADR* BTIC: ADT | CME Globex: ASPR* CME ClearPort: ASPR* Clearing: ASPR* BTIC: ASPT |
| | *not tradable (except as BTIC) and will be available only for margining and position assignment (EFRP) | | | | | |

CONTRACT SPECIFICATIONS (CONTINUED)

| CONTRACT NAME | ADJUSTED INTEREST RATE S&P 500 TOTAL RETURN (EFFR) FUTURES | ADJUSTED INTEREST RATE NASDAQ-100 TOTAL RETURN (EFFR) FUTURES | ADJUSTED INTEREST RATE RUSSELL 1000 TOTAL RETURN FUTURES | ADJUSTED INTEREST RATE RUSSELL 2000 TOTAL RETURN FUTURES | ADJUSTED INTEREST RATE DOW JONES INDUSTRIAL AVERAGE TOTAL RETURN FUTURES | ADJUSTED INTEREST RATE S&P 500 TOTAL RETURN (SOFR) FUTURES |
|------------------------|---|---|--|--|--|--|
| LISTED CONTRACTS | Quarterly contracts (Mar, Jun, Sep, Dec) listed for 13 consecutive quarters, 3 non-Jan serials, 1 nearest Jan contract and 7 additional Dec quarterly contracts | Quarterly contracts listed for the 9 nearest quarters on the March Quarterly cycle (March, June, September and December) and 5 additional December contract months. | | | | December 2026 and the following 7 additional Dec quarterly contracts |
| SETTLEMENT METHOD | Financially settled | | | | | |
| TERMINATION OF TRADING | Trading terminates on the 3rd Friday of the contract month. BTIC: Trading terminates on the business day prior to 3rd Friday of the contract month. | | | | | |
| SETTLEMENT PROCEDURES | Daily settlement price of contract shall be determined based on the following formula: | | | | | |
| | $= (SPTR_t - AF_t) + SPTR_t \times \tau_t \times S_t^{settle}$ | $= (XNDX_t - AF_t) + XNDX_t \times \tau_t \times S_t^{settle}$ | $= (RU10INTR_t - AF_t) + RU10INTR_t \times \tau_t \times S_t^{settle}$ | $= (RU20INTR_t - AF_t) + RU20INTR_t \times \tau_t \times S_t^{settle}$ | $= (DJITR_t - AF_t) + DJITR_t \times \tau_t \times S_t^{settle}$ | $= (SPTR_t - AF_t) + SPTR_t \times \tau_t \times S_t^{settle}$ |
| | where the Spread Settle (S_t^{settle}) for the day shall be determined based on market activities (quotes, traded price) or prior day settle if no market activities and AF _t stands for Accrued Financing. It is the sum of accrued daily overnight financing until settlement specific to this product only. | | | | | |
| | Final settlement price shall be determined based on the following formula: | | | | | |
| | $SPTR_t^{soq} - AF_t$ | $XNDX_t^{soq} - AF_t$ | $RU10INTR_t^{soq} - AF_t$ | $RU20INTR_t^{soq} - AF_t$ | $DJITR_t^{soq} - AF_t$ | $SPTR_t^{soq} - AF_t$ |
| BLOCK MINIMUM | 250 | 250 | 50 | 50 | 250 | 250 |

To learn more about AIR Total Return futures, visit cmegroup.com/airtrf

London

+44 20 7382 2200

New York

+1 646 744 0400

Singapore

+65 6372 8181

Stockholm

+46 8 545 25 130

Tokyo

+81 35511 6688

cmegroup.com

Neither futures trading nor swaps trading are suitable for all investors, and each involves the risk of loss. Swaps trading should only be undertaken by investors who are Eligible Contract Participants (ECPs) within the meaning of Section 1a(18) of the Commodity Exchange Act. Futures and swaps each are leveraged investments and, because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for either a futures or swaps position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles and only a portion of those funds should be devoted to any one trade because traders cannot expect to profit on every trade.

CME Group, the Globe Logo, CME, Globex, E-Mini, CME Direct, CME DataMine and Chicago Mercantile Exchange are trademarks of Chicago Mercantile Exchange Inc. CBOT is a trademark of the Board of Trade of the City of Chicago, Inc. NYMEX is a trademark of New York Mercantile Exchange, Inc. COMEX is a trademark of Commodity Exchange, Inc. All other trademarks are the property of their respective owners.

The information within this communication has been compiled by CME Group for general purposes only. CME Group assumes no responsibility for any errors or omissions. CME Group does not represent that any material or information contained in this communication is appropriate for use or permitted in any jurisdiction or country where such use or distribution would be contrary to any applicable law or regulation.

Additionally, all examples in this communication are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience. All matters pertaining to rules and specifications herein are made subject to and superseded by official CME, CBOT, NYMEX and COMEX rules. Current rules should be consulted in all cases concerning contract specifications.