



EQUITY INDEX

Equity Financing Demand Dynamics for AIR TRFs

By CME Group

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- As the S&P 500 hit record highs at year-end, dealers faced a significant increase in equity collateral financing needs.
- Balance sheet management for primary dealers plays a crucial role in equity financing, as these institutions can face limitations¹ on the amount of equity funding they can provide.
- Year-end periods can often lead to higher equity funding spreads, partly because of both positioning and end-of-year balance sheet management.
- Adjusted Interest Rate Total Return futures (AIR TRF) liquidity and significantly increased trading activity during the period between December and January:
 - The average daily volume (ADV) for the S&P 500 AIR TRF suite was 32K, equivalent to an average \$10B in value traded in December 2024 and an average notional open interest (OI) equivalent to \$233B.
 - Specifically, the January 25 contract allowed the greatest precision to capture the equity financing.
 - Strong demand for equity upside and limited dealer balance sheet capacity drove a ~400% increase in volume for the contract, with ADV at 9.2k and notional OI of \$28B.
 - The respective equity financing spreads for the January contracts peaked around EFR²+220 bps versus EFR+150 bps compared to the previous year.
- AIR TRFs have emerged as an alternative to OTC swaps and option synthetics³, offering advantages due to their margin efficiency, deep liquidity, transparency and reduced counterparty risk.
- Increasing adoption of AIR TRFs by a diverse range of participants, including: asset managers, hedge funds, sovereign wealth funds, insurers, option traders and sell-side firms, for risk management and spread trading.

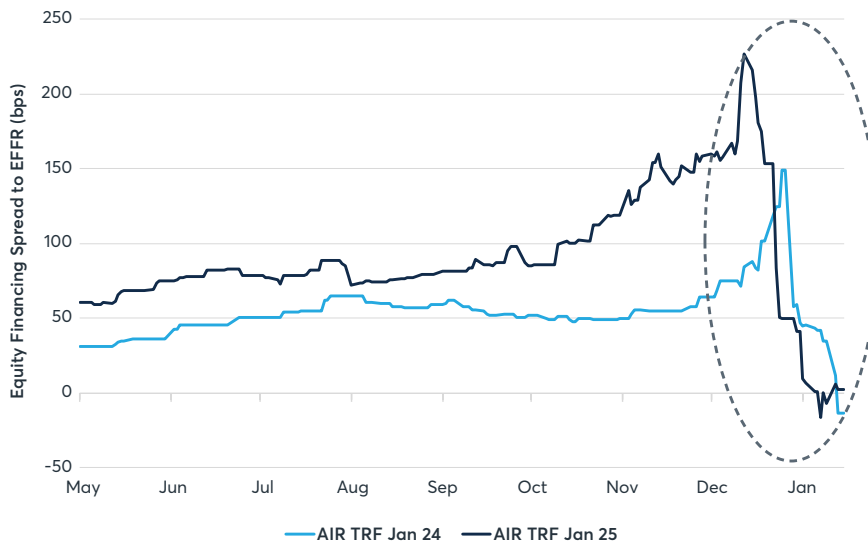
Year-end impacts in the AIR TRFs

Heading into year-end, equity repo rates can fluctuate significantly due to increased upside demand and reduced balance sheet supply. Higher spreads in the bi-lateral OTC market make equity financing more expensive, pushing market participants to seek cost-effective alternatives. The AIR TRF product has proven to be a liquid, transparent and capital-efficient channel for the marketplace in managing equity financing risk.

U.S. equity repo levels rise in Q4

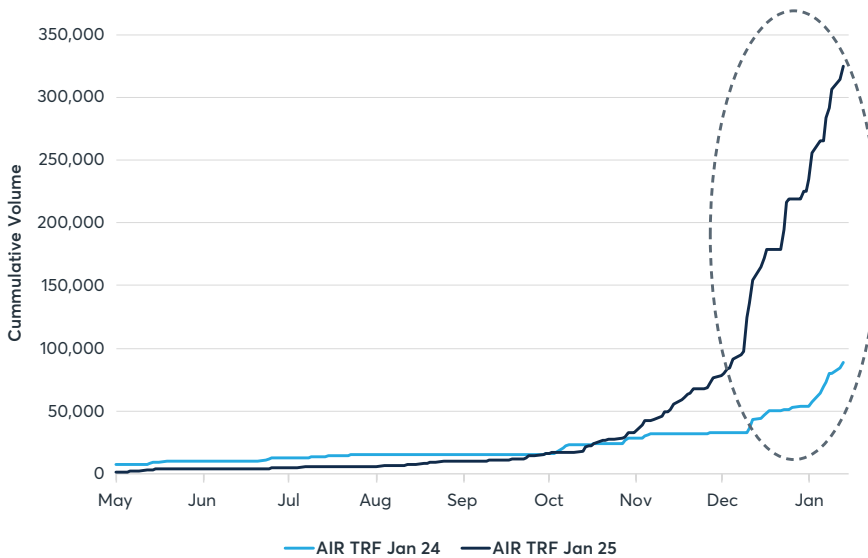
Exhibits 1 and 2 depict the historic trend for equity funding spreads in the S&P 500 AIR TRFs January 2024 and January 2025 expiring contracts. The sharp increase in equity repo funding spreads during November and December 2024 indicates a period of tighter funding conditions due to bank balance sheet constraints. The January contracts are examined in more detail as they bridge the year-end dates, whereas the December contracts which expire on the third Friday of the month, fall short.

Exhibit 1 - Equity funding spreads in S&P 500 AIR TRFs in bps for January 24 & 25 contracts



Source: CME Group, AIR TRFs trade as a basis trade at index close (BTIC) in basis points (bps)

Exhibit 2 - Cumulative volume activity in S&P 500 AIR TRFs for January 24 & 25 contracts



Source: CME Group, volume is number of contracts traded

Market participant positioning

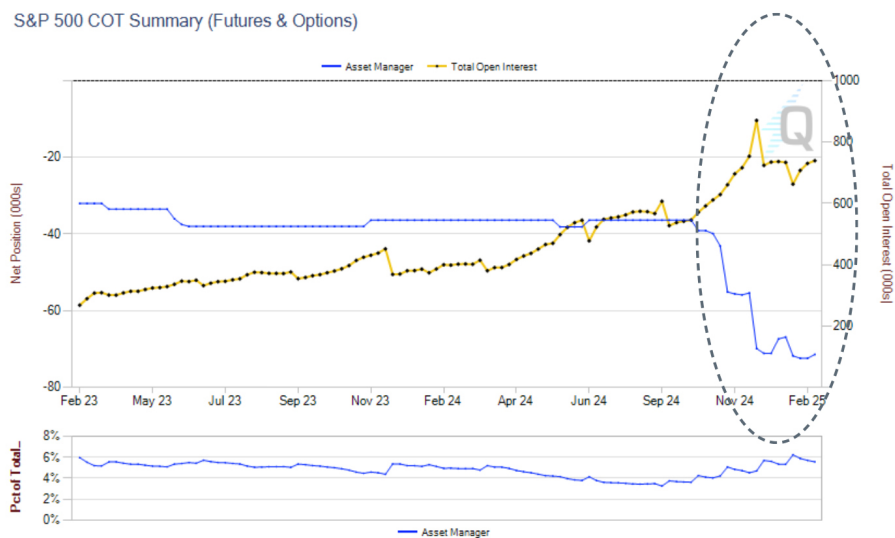
Towards the end of 2024, as the S&P 500 market touched record highs, dealers held record long equity inventory to finance buy-side upside exposure. This was mostly facilitated by dealers who as a result were long stock inventory in order to replicate short futures positions they had sold.

The CFTC Commitment of Traders reports show dealers reducing long physical positioning through derivative or other financial instruments, such as long S&P 500 AIR TRFs. This is described by many as year-end balance sheet management.

What was interesting about Q4 2024 was that as demand drove equity financing costs higher, asset managers added equity funding supply to the market, almost doubling net open interest as illustrated in Exhibit 3 in the AIR TRF market. The increase in participation by non-traditional equity repo counterparties, like the buy-side in the [Commitment of Traders](#) reports (Exhibits 3 and 4) was a contributing factor in driving AIR TRF notional OI to \$275B in December (2024), representing an increase 130% year-on-year.

For further information, please refer to [AIR Supply: boosting capital efficiency with cleared derivatives](#).

Exhibit 3 - Commitment of Traders for dealers for S&P 500 AIR TRF



Source: CME Group, Commitment of Traders, Data provided by CFTC.gov

How can market participants isolate the equity repo?

Utilizing the AIR TRF product for calendar spreads speaks to the market's desire to optimize capital usage, liquidity and risk. Carrying over-the-counter (OTC) bilateral derivative positions has large balance sheet implications for the marketplace and listed derivatives offer a capital-efficient alternative.

One particular use case for [Adjusted Interest Rate Total Return futures \(AIR TRFs\)](#) is to trade the equity repo level of the underlying index.

- AIR TRFs help users manage equity exposures without the complication of pricing in dividend or interest rate risk.
- By positioning along the equity financing curve – i.e. trading calendar spreads, investors can isolate the equity repo level of the underlying index as measured in the financing spread adjustment (FSA) term.
- The separation of risk factors, capital efficiency, democratization of access and data transparency make AIR TRF a best-in-class product for trading equity repo.
- For more information, explore an [equity financing use case example](#).

[CME CORE](#) is a powerful tool for visualizing and unlocking capital efficiencies.

AIR TRFs adoption

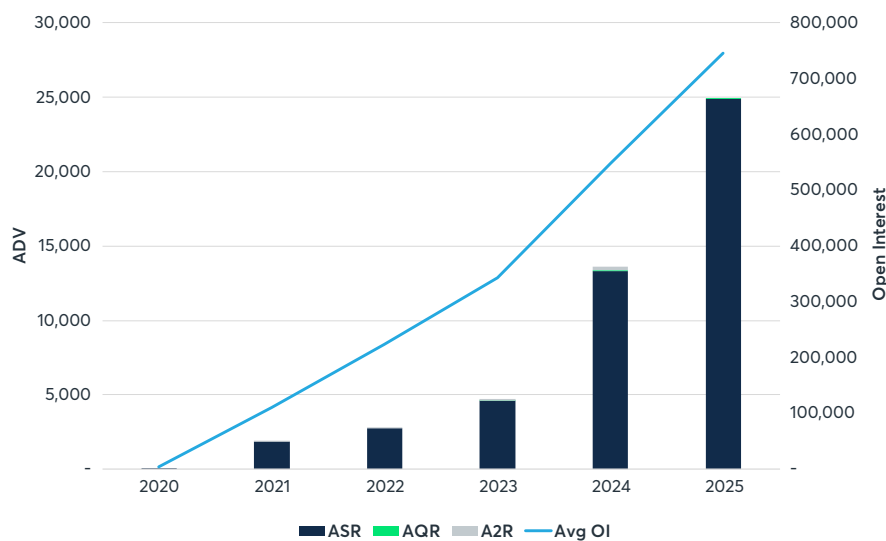
Adjusted Interest Rate Total Return futures on U.S. indices are designed to give total return exposure with an Effective Fed Funds Rate (EFFR⁴) overnight floating rate built in.

While equity repo trading is one use case for AIR TRFs, growing adoption in AIR TRF can be attributed for other reasons. The contract provides similar economics to an equity index total return swap (TRS) with the margin efficiency of listed futures, offers liquidity and transparency, which provides a more efficient product for traditional TRS users.

They're accessible to a spectrum of investors and their standardized nature simplifies trading and reduces counterparty risk. Regulatory changes (UMR) have made OTC swaps less capital efficient, leading to a transition to this cleared product. OTC equity index swaps currently have a SIMM (standard initial margin model) of 19% compared to the current level vs. [AIR TRF at circa 5%](#).

Other reasons include balance sheet constraints for primary dealers have further limited their ability to provide leverage, the transparency (equity financing levels) and access that AIR TRF product brings to the market-place compared to where it was previously a dealer-to-dealer market and to now where the buy-side can participate.

Exhibit 4 - AIR TRFs ADV and OI



Source: CME Group

AIR TRF can be used to manage exposures off-balance-sheet to more margin-efficient wrappers. As a result, AIR TRFs volumes both on Globex and in block trades, have seen significant growth.

Airtight

The demand for AIR TRF futures is a testament to their ability to provide margin efficiency, deep liquidity, transparency and reduced counterparty risk. As repo rates and funding spreads increase around year-end, AIR TRFs offer a compelling solution. Regulatory changes, such as the UMR, have further solidified their position as a preferred financial instrument. For various market participants looking to navigate the complexities of the year-end period and manage their equity exposures more effectively, AIR TRF futures are proving to be a valuable tool in their investment strategies.

Resources and tools

- 1 i.e. Basel and [G-SIB](#)
- 2 [EFFR](#) - Effective Federal Funds Rate
- 3 also known as RevCons
- 4 [AIR TRF SOFR](#) versions are also available

<https://www.cmegroup.com/trading/equity-index/us-index/air-total-return-index-futures.html>

CORE is a recommended tool to best understand the total portfolio margin impact of any trade at CME Group. For a better understanding of SPAN2, watch this [Clearing House Webinar](#) from August 2024. Further, our [Advisory Notice](#) is useful in providing a step-by-step guide for entering a portfolio into CORE.

To learn more on why an investor may choose to trade the equity financing curve, please see [here](#).

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