

Interest Rate futures & options

Trading and liquidity review for 2024

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Introduction

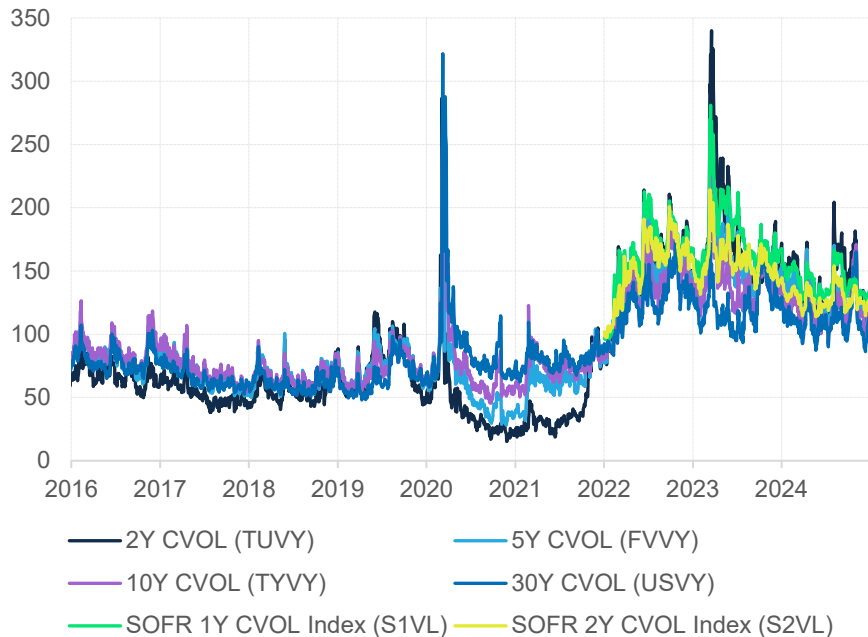
Interest rate risk management again took center stage in 2024 as shifting monetary policy, historic debt levels/issuance, geopolitics and other events drove persistent volatility across the curve.

Through it all, CME Group was the venue of choice for managing risk, providing participants with deep liquidity across short-, medium, and long-term rates, and safe and efficient markets anchored by CME Clearing.

In this deck we summarize the resiliency of liquidity in these markets by analyzing key measures of liquidity:

- ADV: quantifies demand for risk transfer daily
- OI: is the total size of open positions that are being managed by market participants
- LOIH: a fair proxy for breadth of market participation among firms holding significant positions
- Cost to trade: Book depth and bid-ask spreads relative to volatility

Elevated volatility persisted throughout 2024 across the interest rate curve

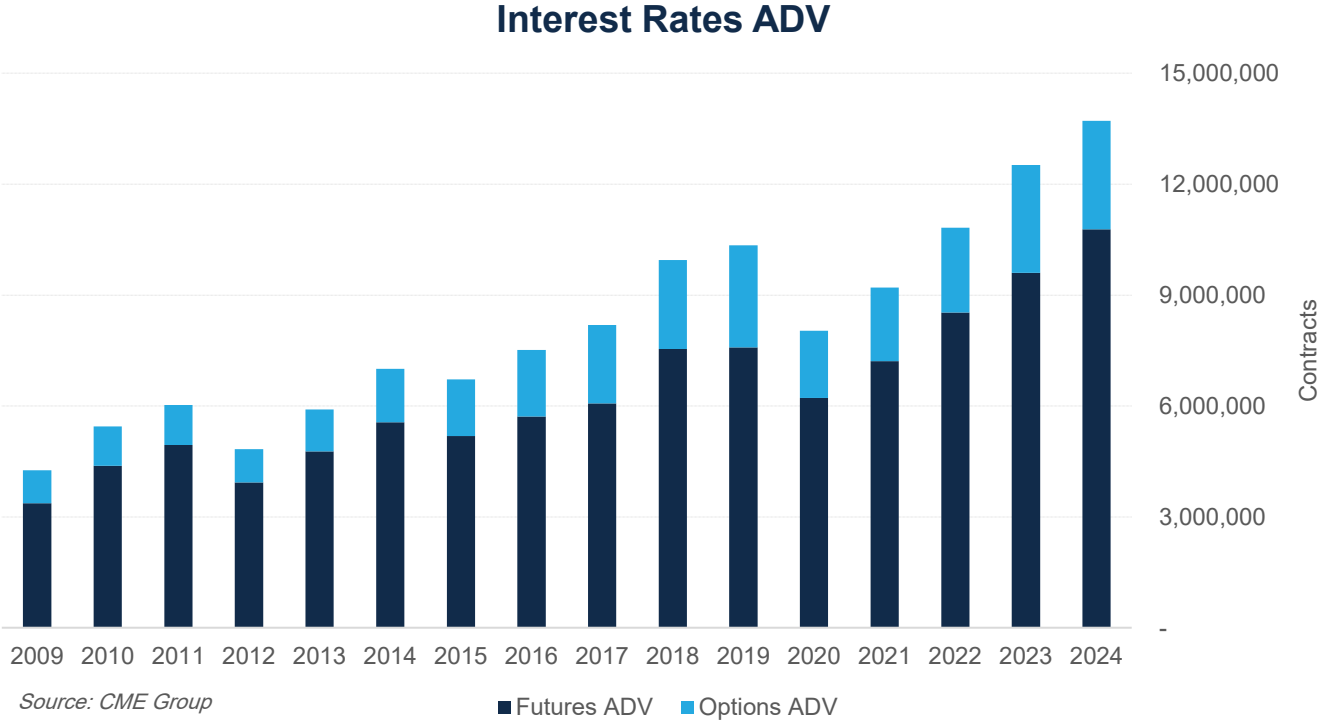


Source: CME Group

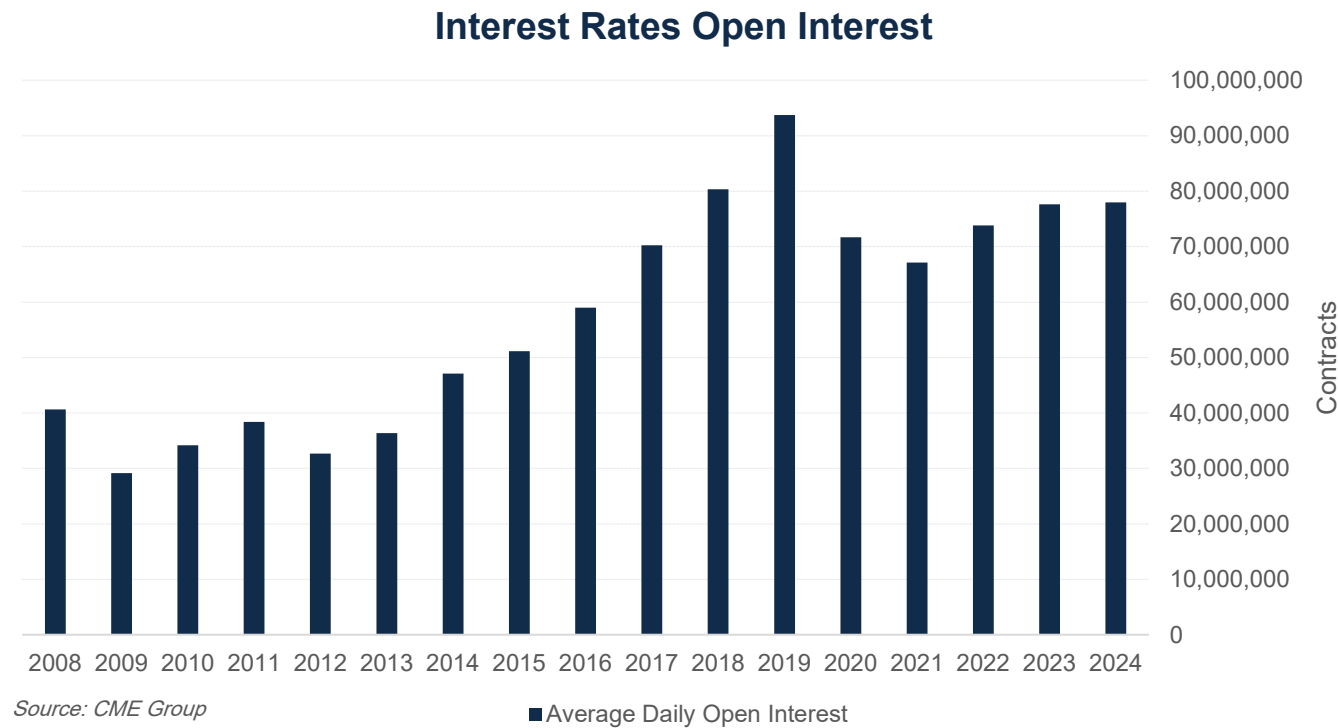
Liquidity analysis

Liquidity can be defined broadly as a market participant's ability to convert assets into cash or to enter/exit a position with ease; and is therefore proportional to indicators such as volume, open interest, breadth of participation, and cost to trade. The following summarizes performance in those four key liquidity measures.

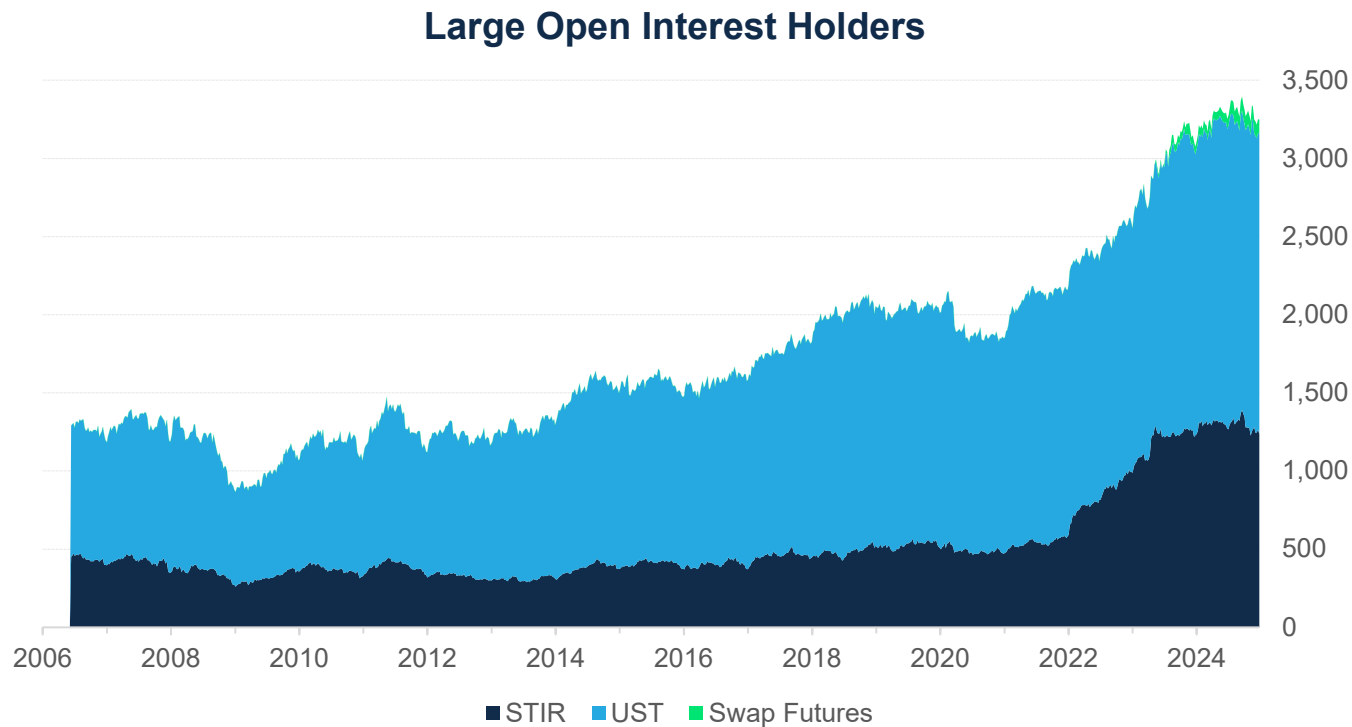
Average daily volume increased to a record 13.7 million contracts per day



Average daily open interest was the third highest all-time



Large open interest holders expanded to record levels



Source: CFTC Commitments of traders Report

Cost to trade fell despite record demand

Analysis into market liquidity considers three interconnected metrics: market conditions, demand, and supply.

These factors, taken together, demonstrate how liquidity and the Cost-to-Trade (CTT) are impacted by changing market dynamics and increased demand as measured by the volume throughput of the order book.

- Market Conditions (Daily True Range)
- Supply (Cost to Trade in the contract)
- Demand (Volume in the contract)

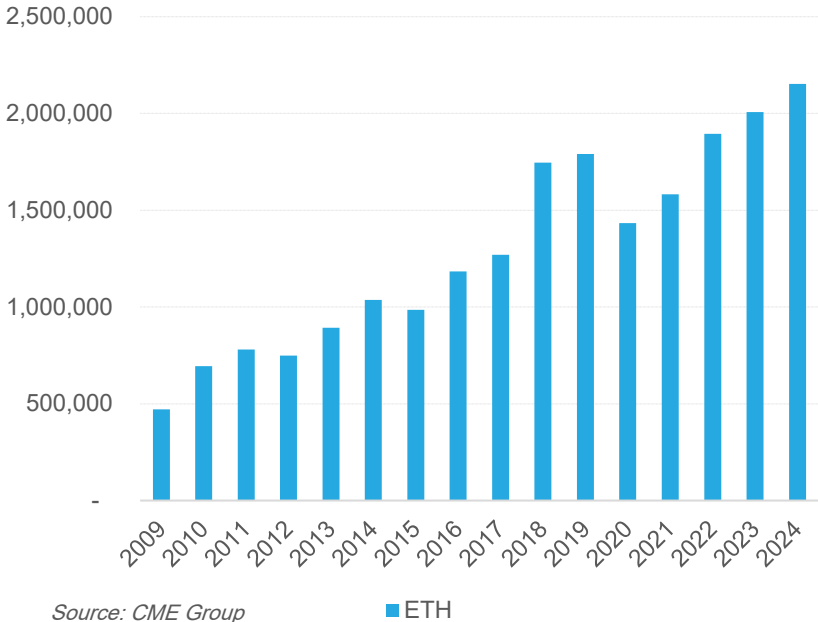
	2022	2023	2024
2-Year T-Note Futures			
Avg. Daily True Range	64.53 (ticks)	66.35 (ticks)	45.82 (ticks)
Avg. Daily Volume	0.68M	0.81M	1.01M
Avg. Cost to Trade, 1000 Lots	1.81 (ticks)	1.75 (ticks)	1.27 (ticks)
5-Year T-Note Futures			
Avg. Daily True Range	81.51 (ticks)	73.59 (ticks)	52.36 (ticks)
Avg. Daily Volume	1.30M	1.56M	1.74M
Avg. Cost to Trade, 1000 Lots	1.85 (ticks)	1.58 (ticks)	1.24 (ticks)
10-Year T-Note Futures			
Avg. Daily True Range	61.52 (ticks)	52.65 (ticks)	39.62 (ticks)
Avg. Daily Volume	1.84M	1.99M	2.35M
Avg. Cost to Trade, 500 Lots	1.13 (ticks)	1.06 (ticks)	1.02 (ticks)

Source: CME Group

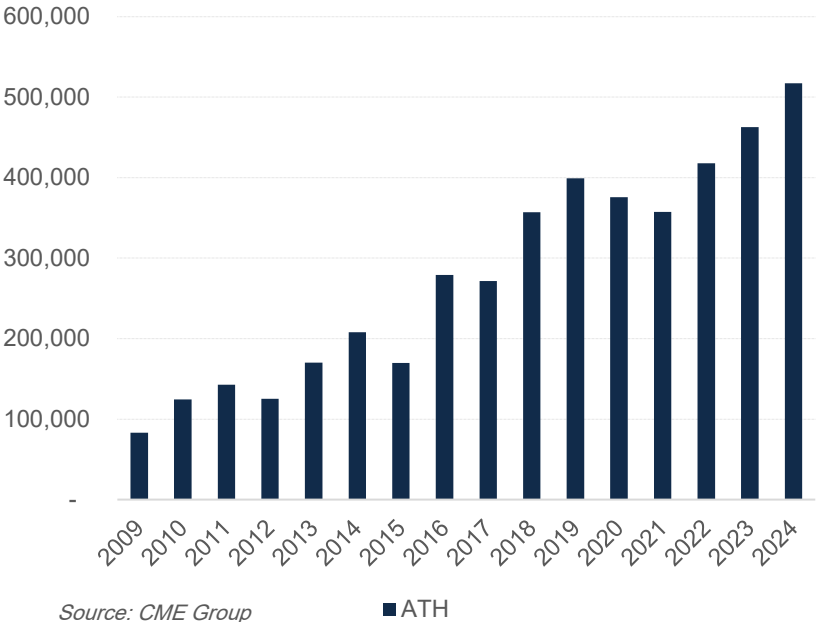
CTT/DTR % is calculated everyday in the period and then averaged.

Near 24-hour liquidity enabled efficient risk transfer across time-zones

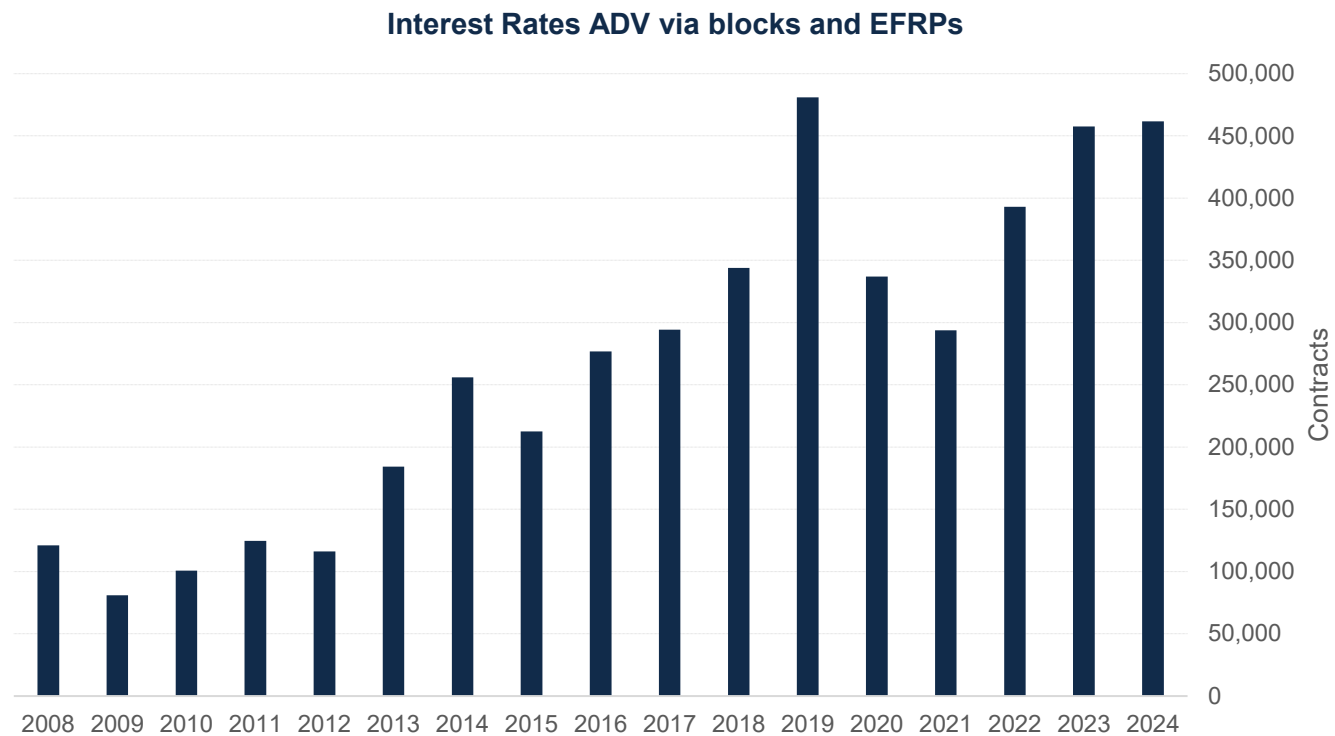
Interest Rates ADV -- European Trading Hours



Interest Rates ADV -- Asian Trading Hours



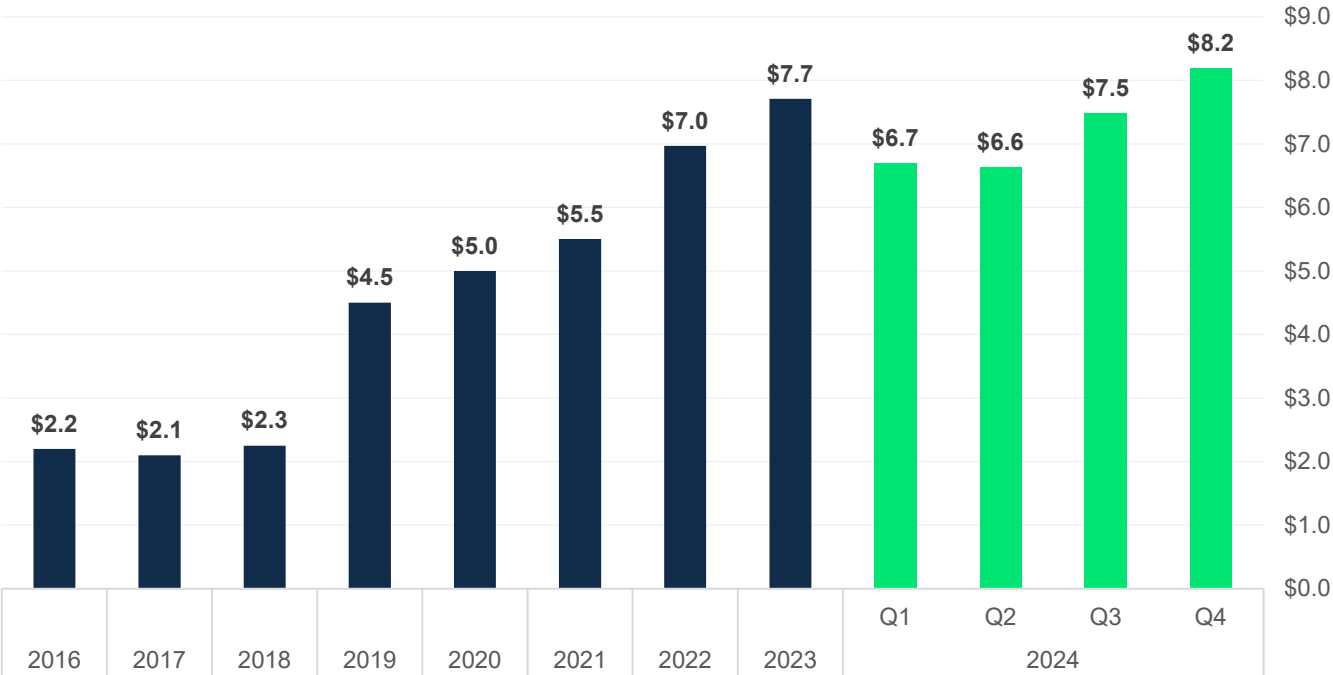
Active bilateral markets (blocks, EFRs, EFPs) complemented CLOB liquidity



Source: CME Group

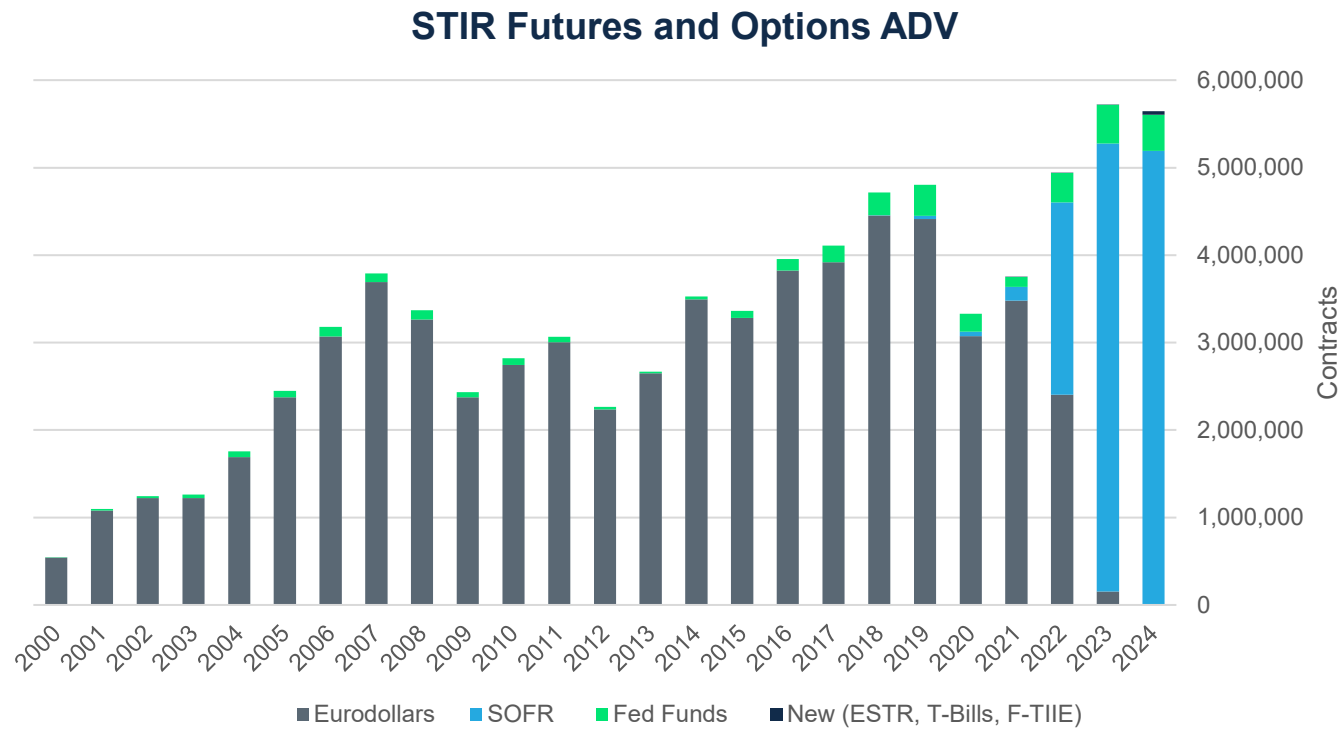
Portfolio Margining of cleared swaps vs. listed F&O delivered unrivaled capital efficiencies

Average Daily Portfolio Margining Savings (\$B)



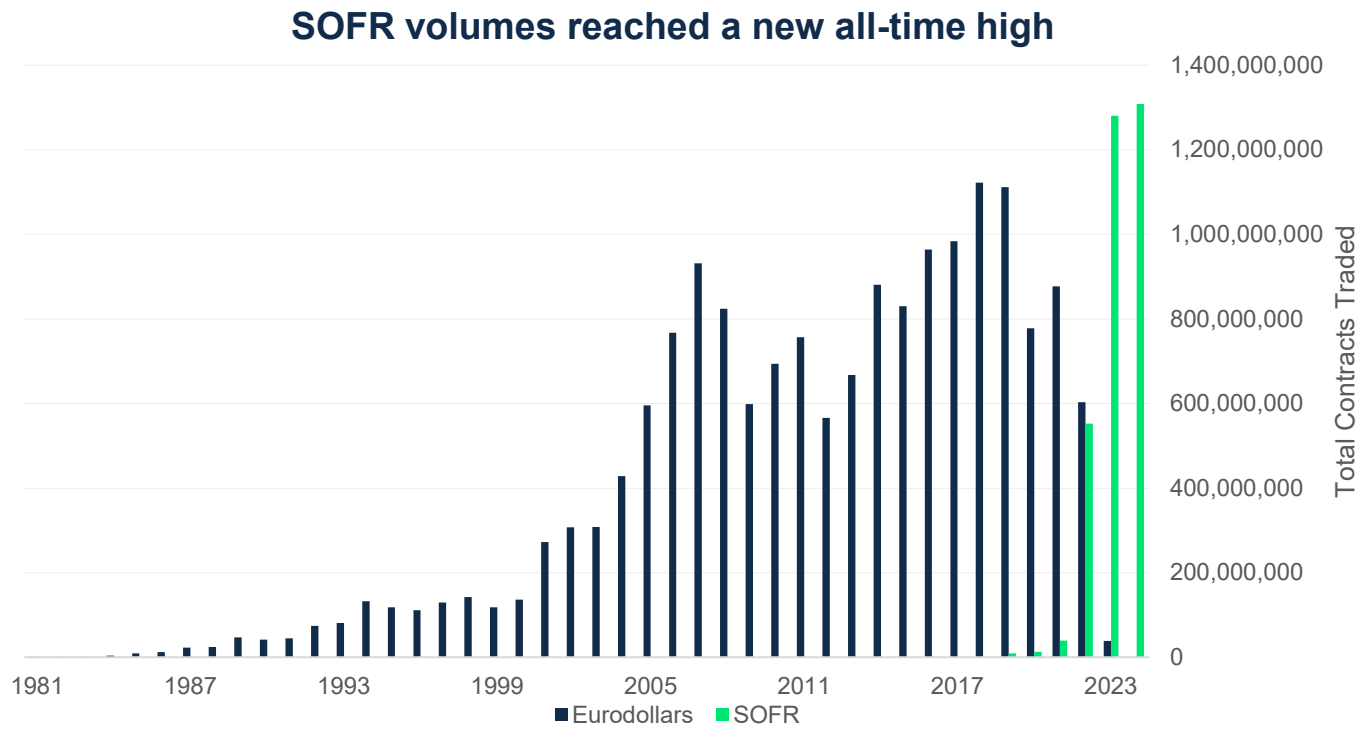
Short-Term Interest Rates (STIRs)

Short-Term Interest Rate (STIR) volumes nearly matched 2024's record



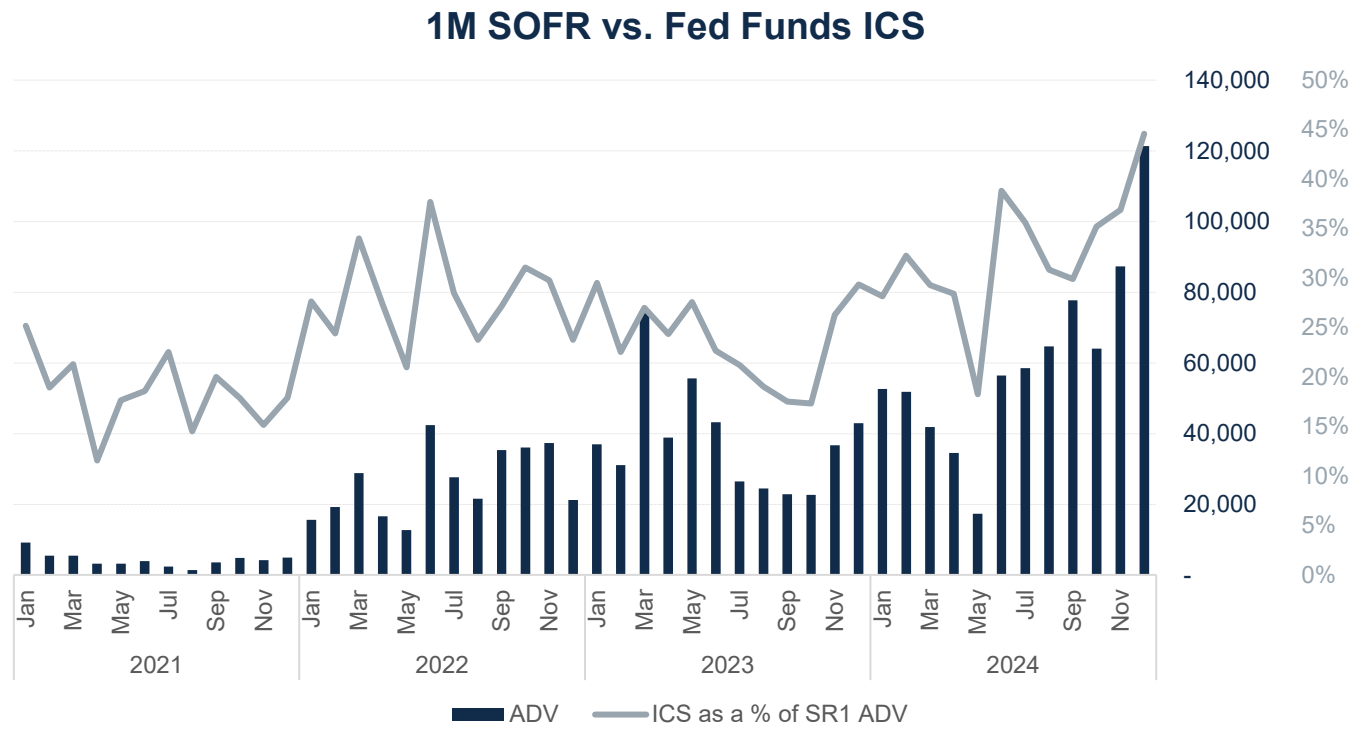
Source: CME Group

SOFR futures and options volume topped 1.3 billion contracts (5.2M ADV)

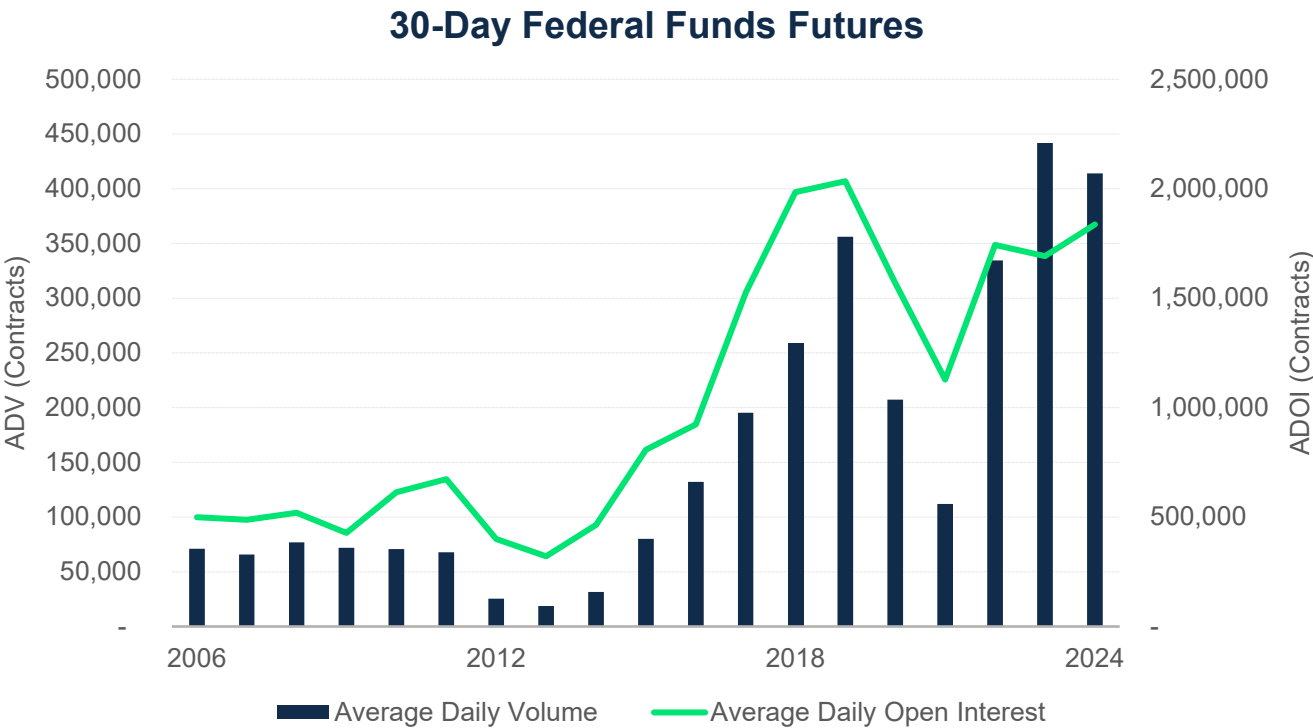


Source: CME Group

1M SOFR vs. Fed Funds futures saw record basis trading via Inter-Commodity Spreads (ICS)

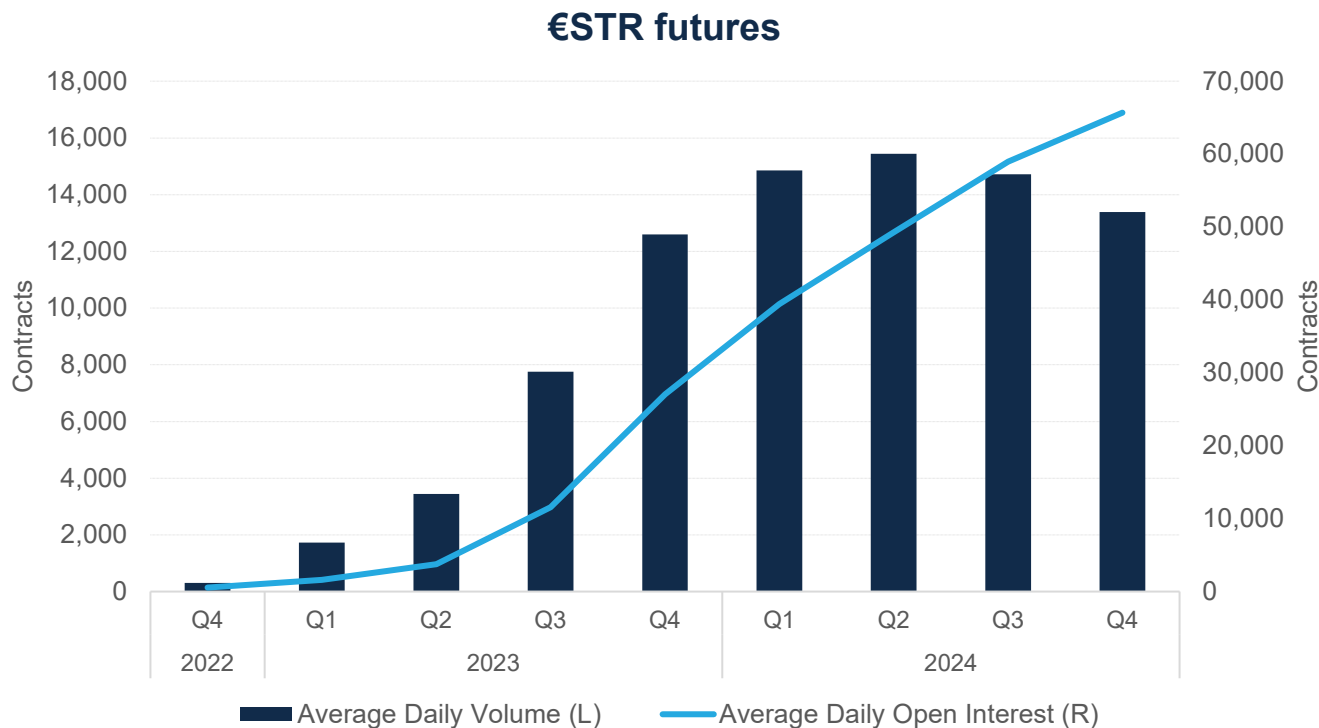


Fed Funds futures ADV exceeded 400K, average open interest rose 9% YoY



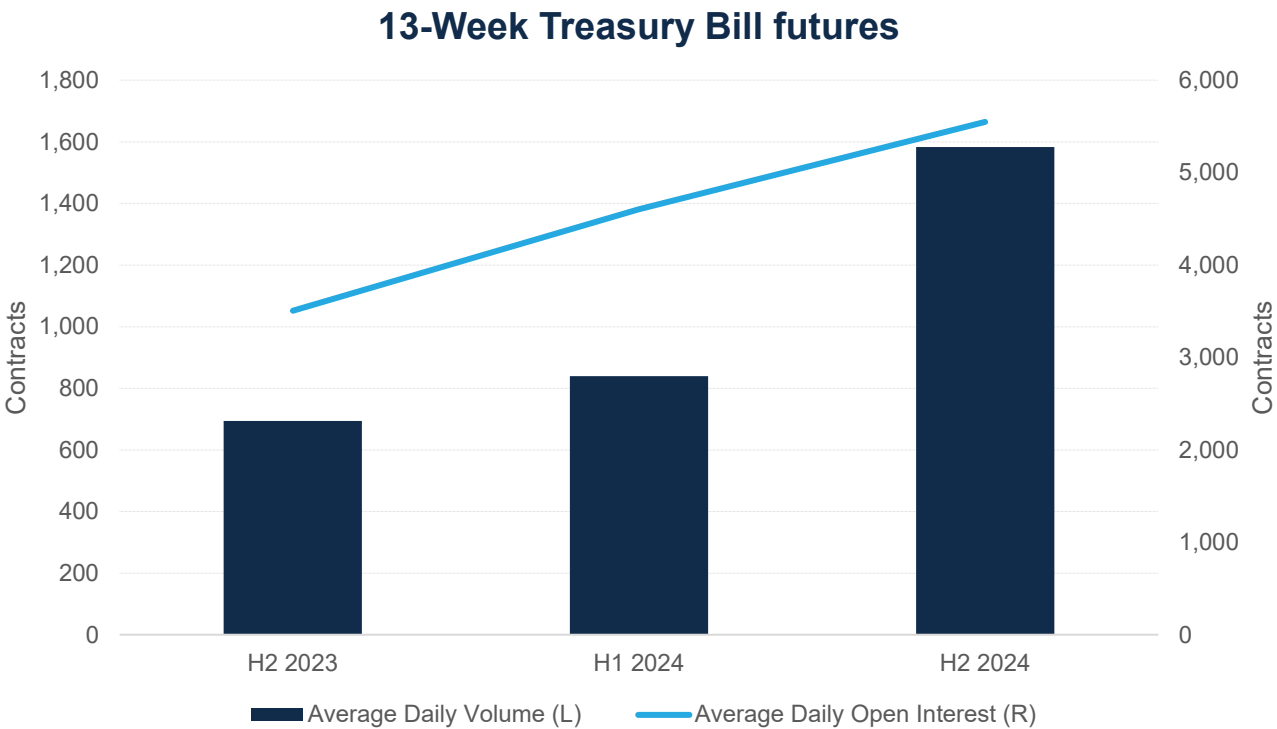
Source: CME Group

€STR futures liquidity deepened, and participation broadened



Source: CME Group

T-Bill futures saw steady growth, aided by an active basis market vs. SOFR

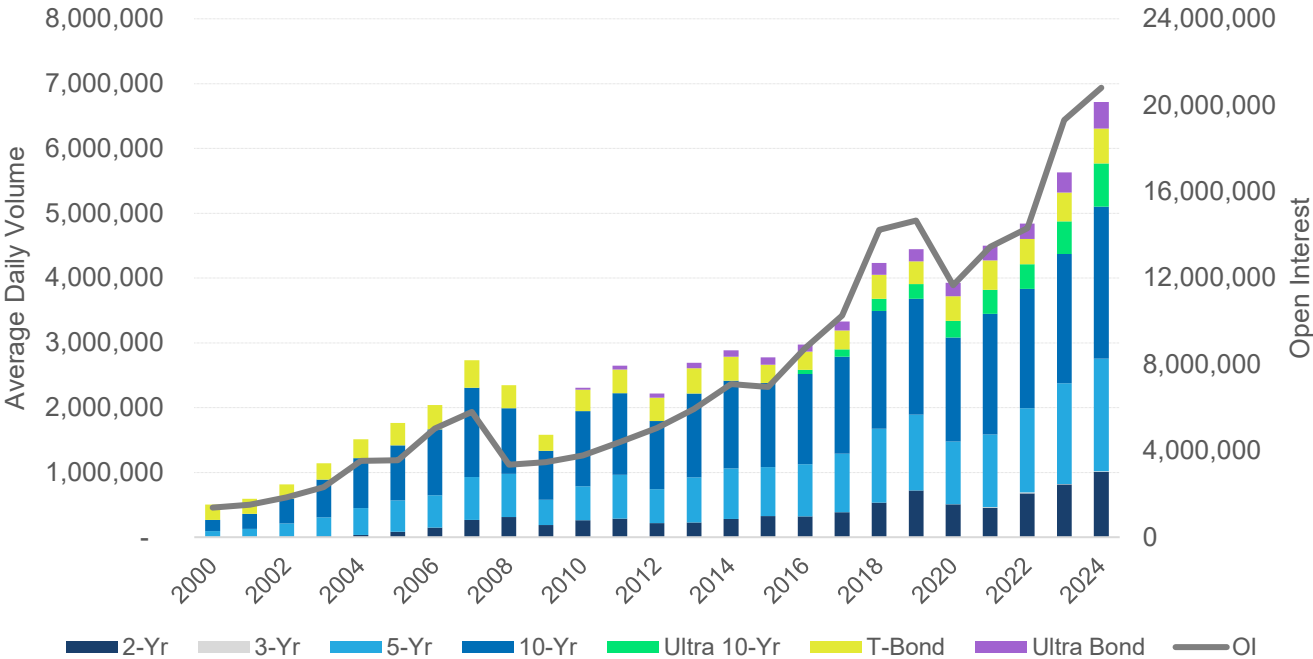


Source: CME Group

U.S. Treasuries

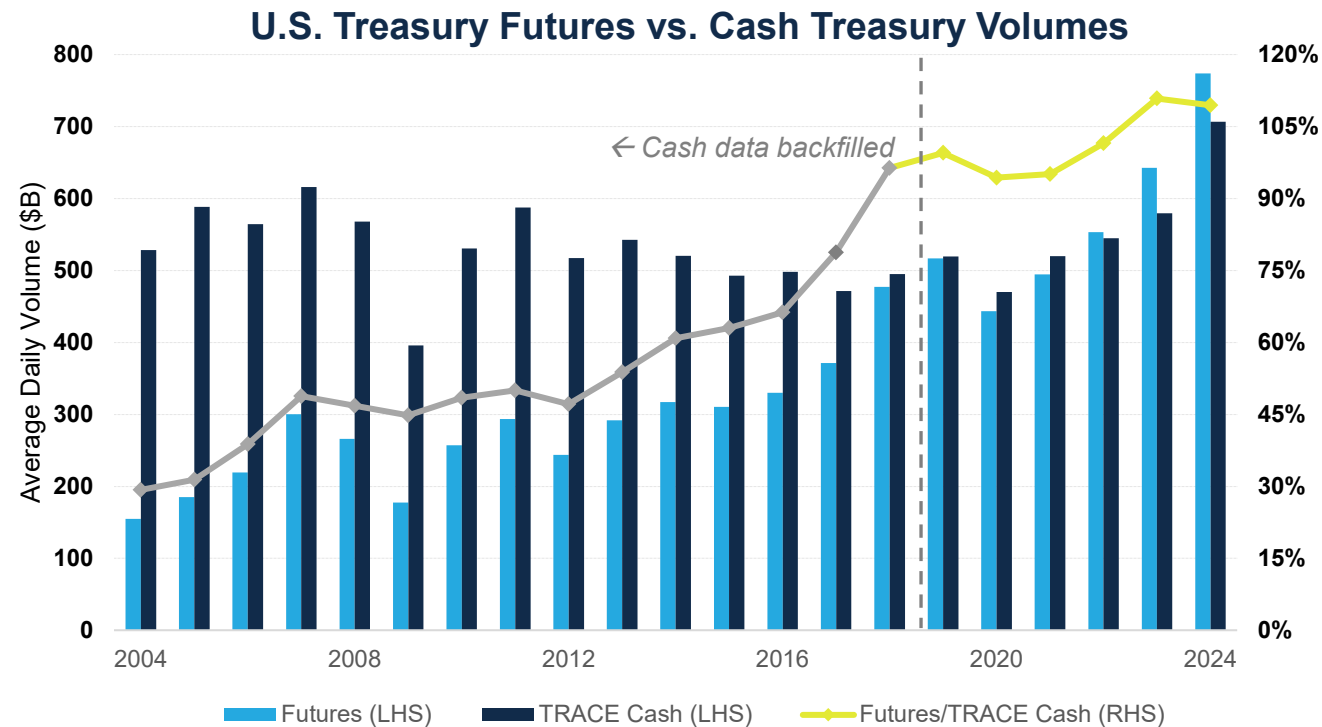
Treasury futures trading activity surged to a 4th consecutive record year

U.S. Treasury Futures ADV and OI



Source: CME Group

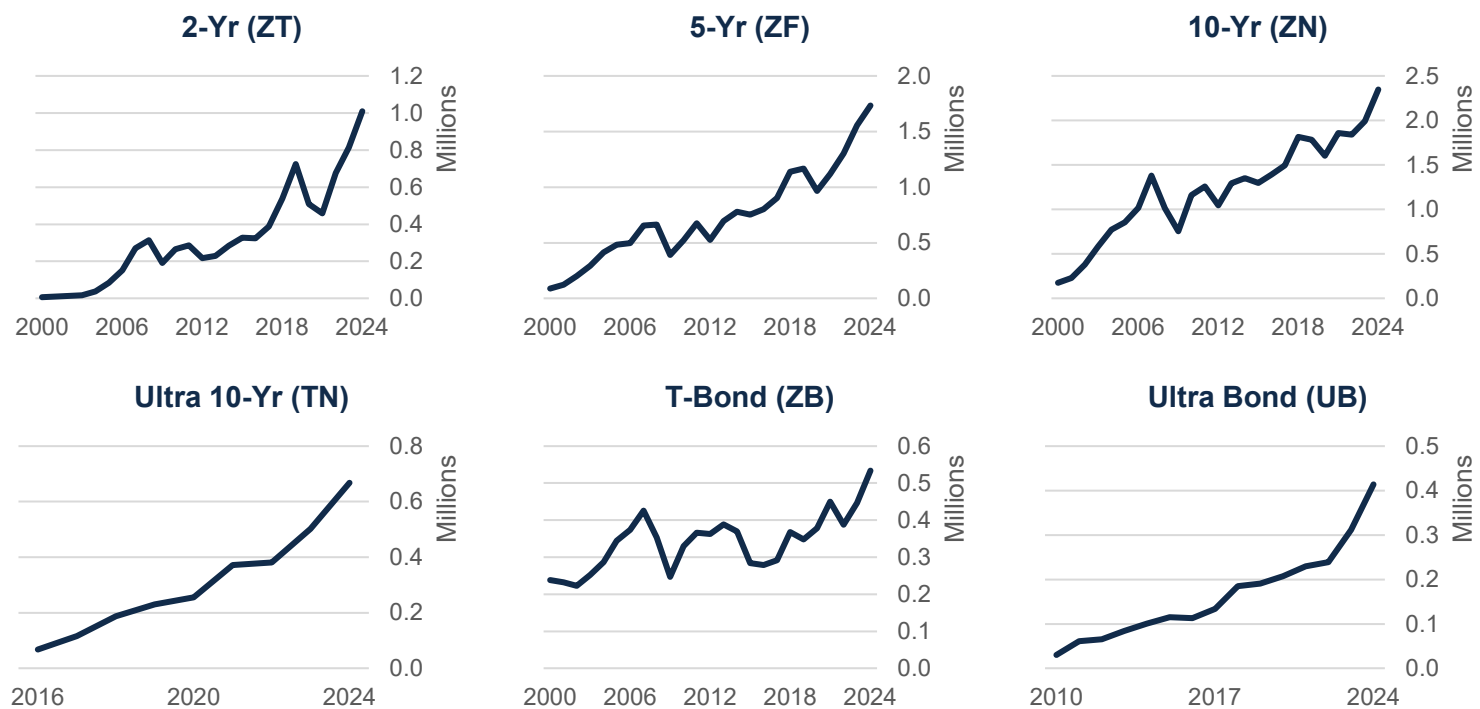
Treasury futures averaged \$774B notional/day, or 109% of the cash market



Source: CME Group, TRACE, FRBNY

*Prior to 2019, TRACE Cash is backfilled as 120% of primary dealer volumes reported by the FRBNY.

All six benchmark tenors hit new ADV records

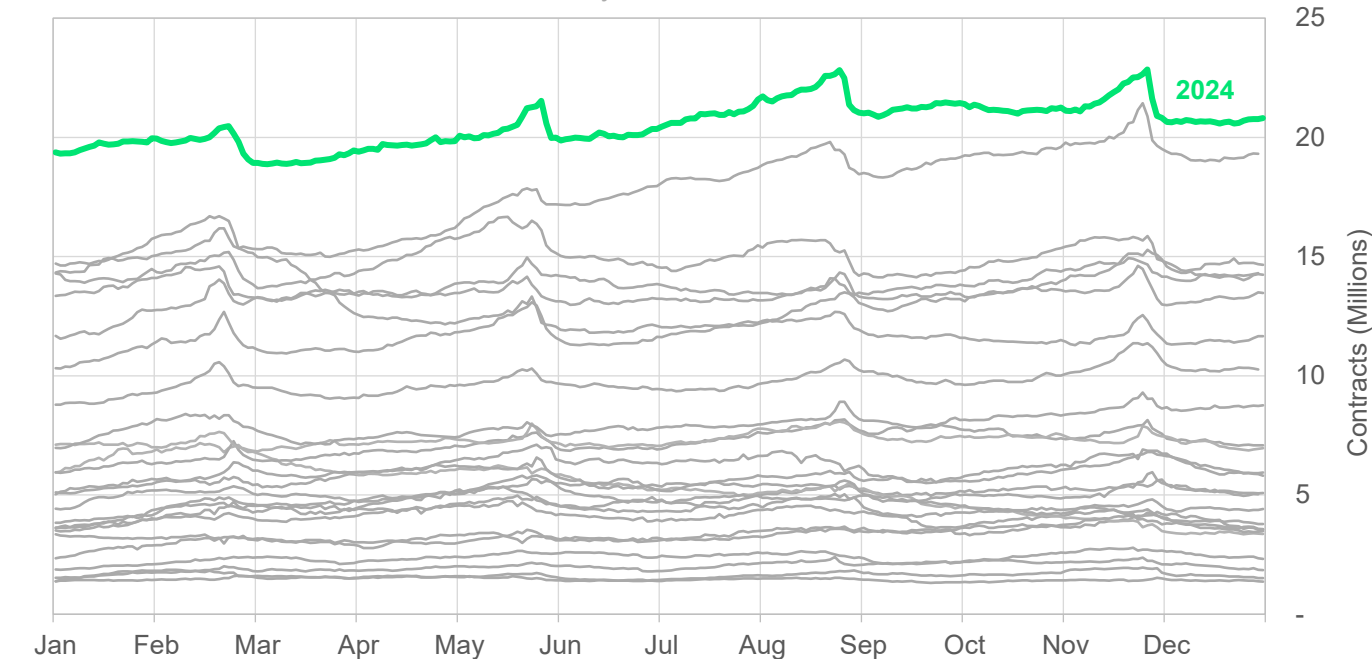


Source: CME Group

Open interest surged to unprecedented levels

Treasury Futures Open Interest YoY

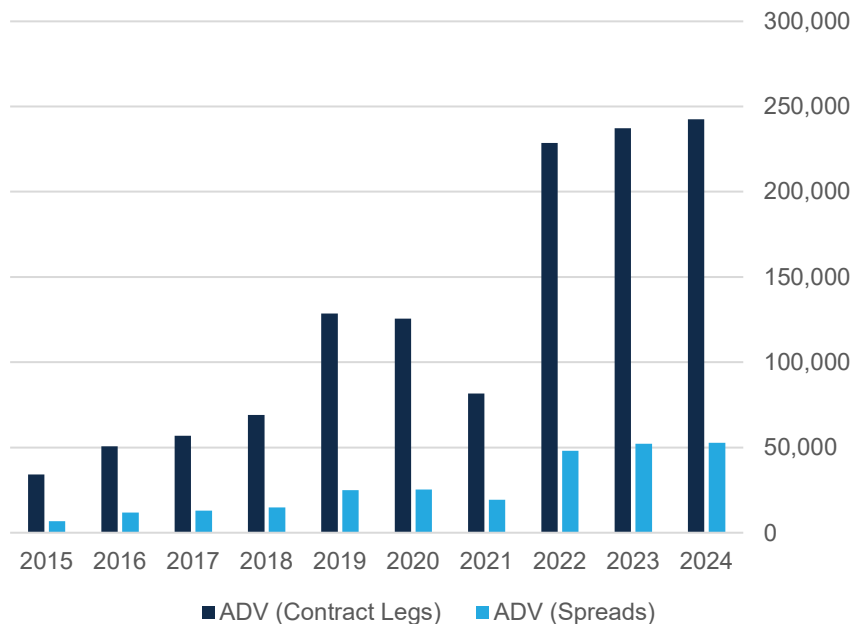
Grey lines: 2000-2023



Source: CME Group

Curve trading via inter-commodity spreads reached new highs

Treasury Futures Inter-Commodity Spreads (ICS)



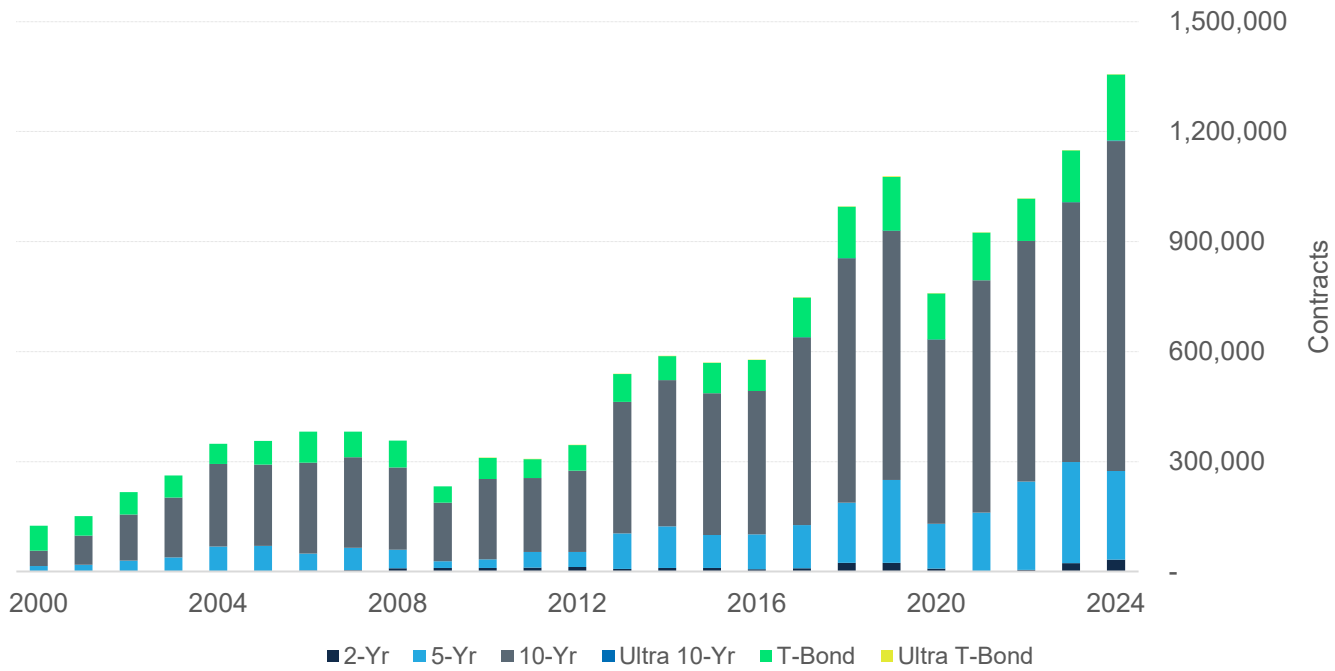
Top pairs traded in 2024

Pair	ICS instrument(s)	2024 ADV (Contract Legs)	2024 ADV (Spreads)
5Y/10Y	FIT/FYT	82,007	17,111
2Y/5Y	TUF/TFY	74,416	16,101
10Y/Ultra10Y	TEX	24,437	2,036
10Y/30Y	NOB	16,920	5,640
Ultra10Y/30Y	NCB	12,745	2,549

Source: CME Group

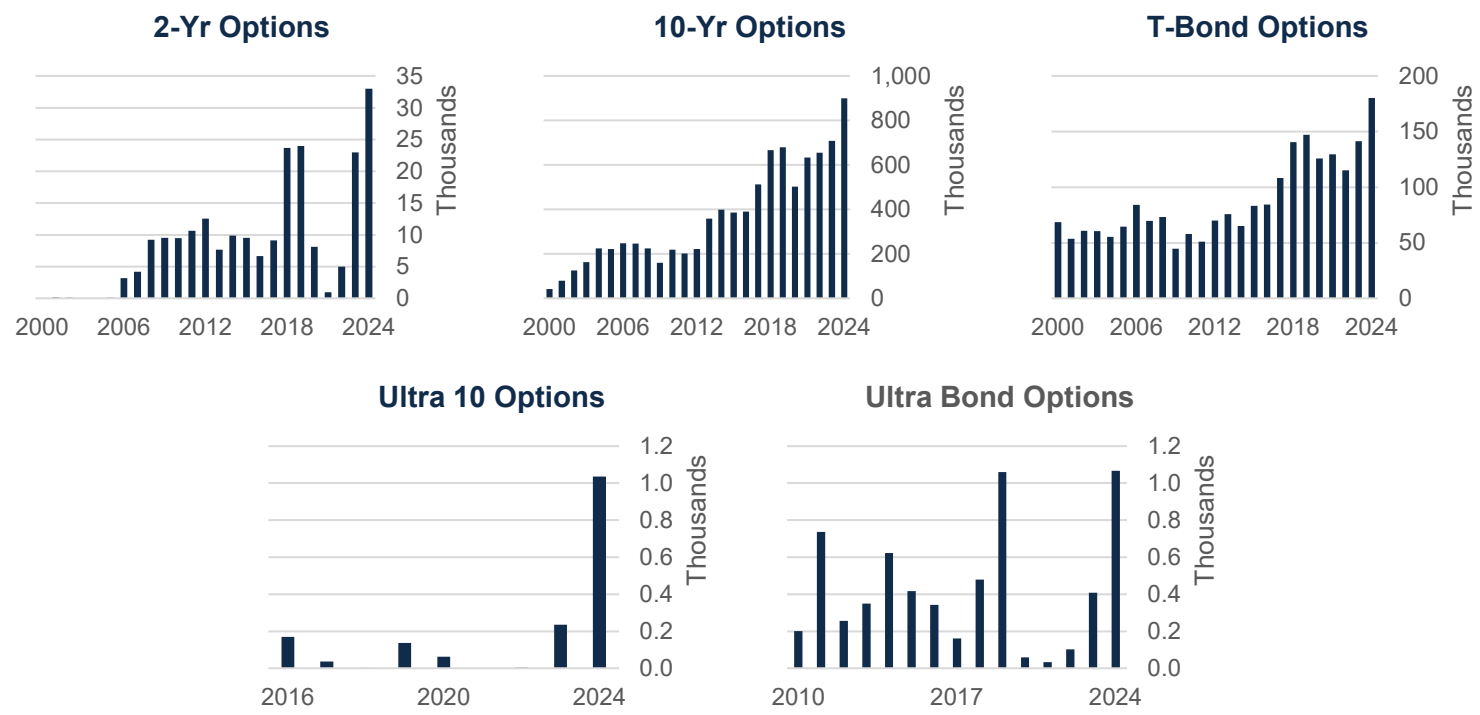
Treasury options trading activity jumped to a 2nd consecutive record year

Treasury options ADV



Source: CME Group

2-Year, 10-Year, Ultra 10, Bond, and Ultra Bond options all saw record ADV



Source: CME Group

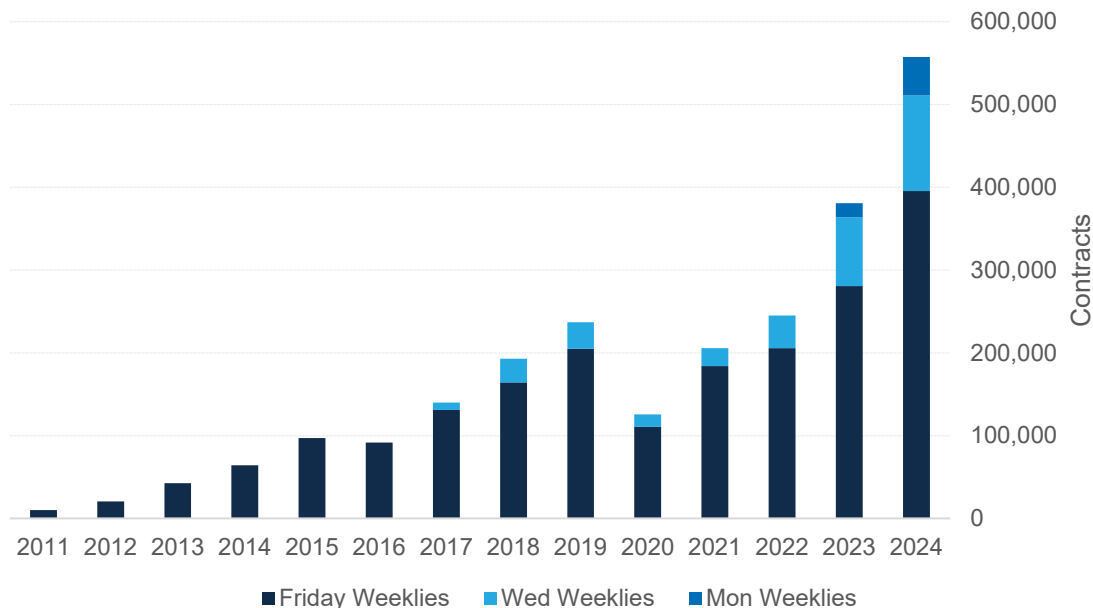
Weekly Treasury options saw outsized growth, providing key liquidity & short-term flexibility for hedging event risks

Monday-expiring weeklies filled demand as a precise hedge for weekend risk, averaging 50K contracts per day in their first full year of trading

Wednesday weeklies were paramount as a hedging tool for FOMC and CPI. ADV grew to a record 115K contracts in 2024, +39% vs. 2023's prior record.

Friday weeklies remained the key tool for managing Non-Farm Payrolls, with ADV reaching a record 395K contracts, +41% YoY.

Weekly Treasury Options ADV

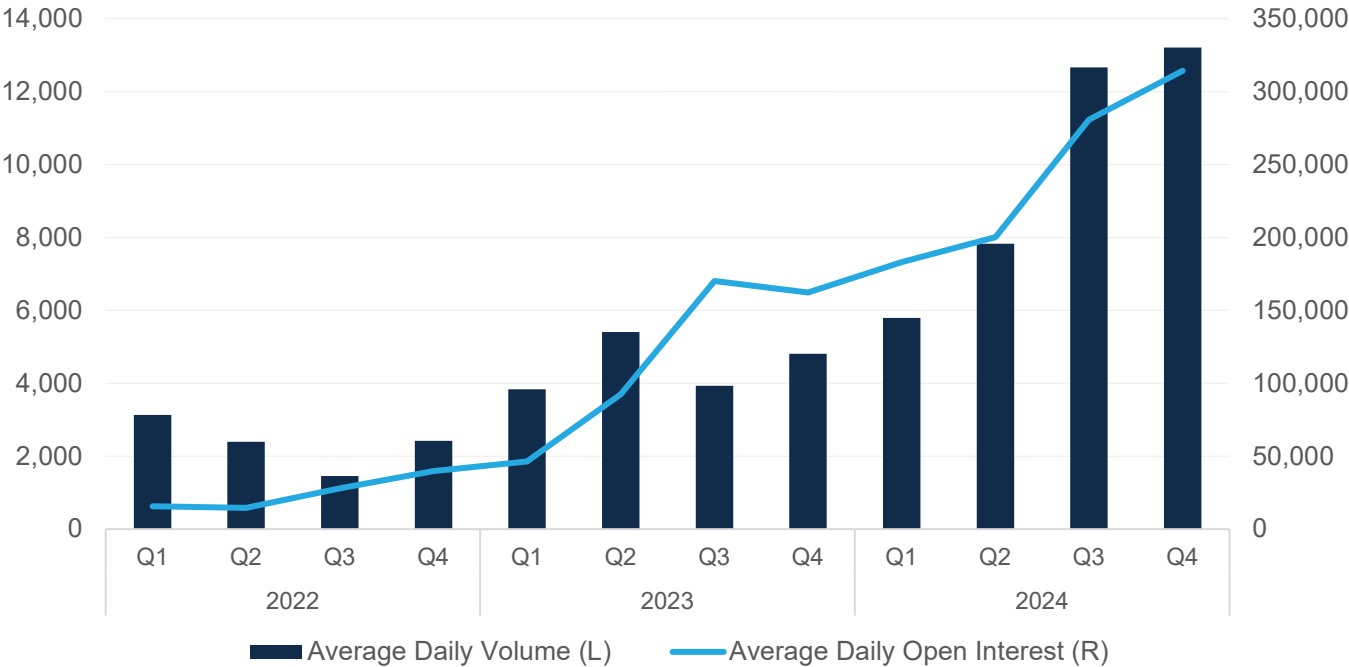


Source: CME Group

Swap futures

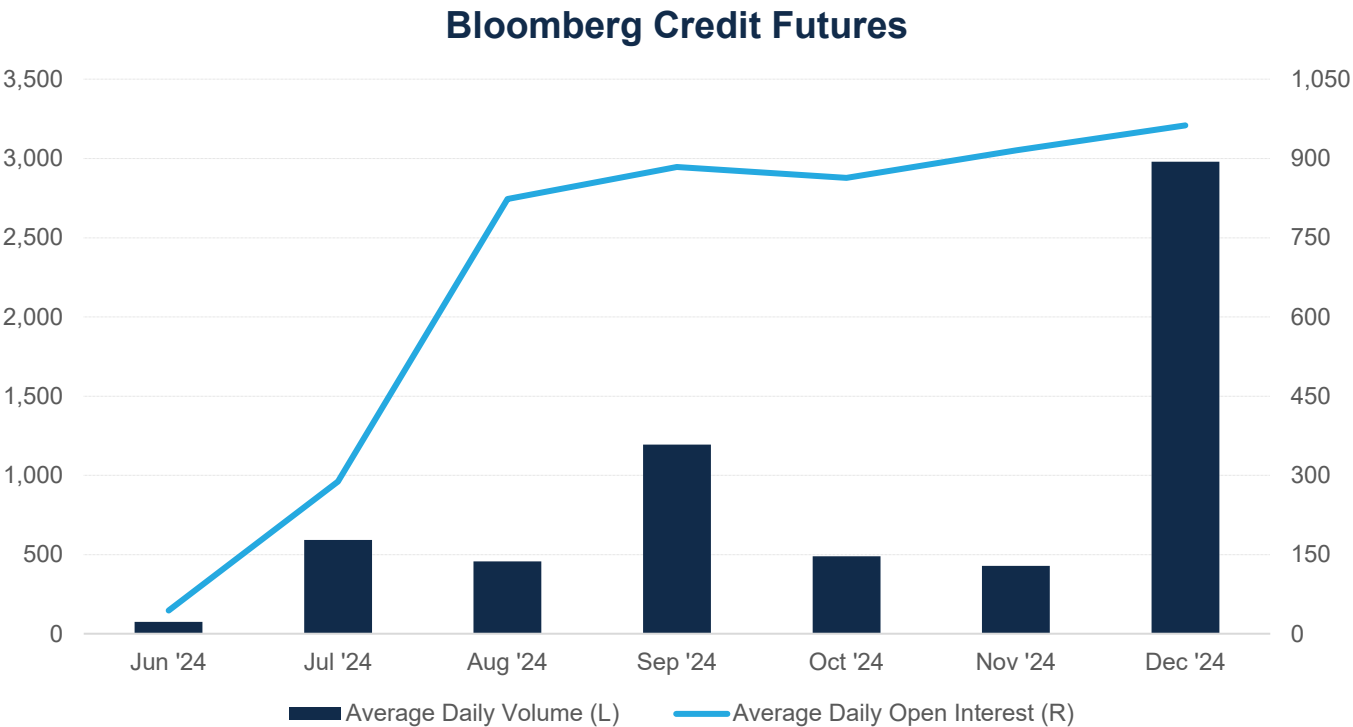
Eris SOFR Swap futures gained popularity among regional banks, ALM desks, mortgage services/originators, and private lenders

Eris SOFR Swap futures



Credit futures

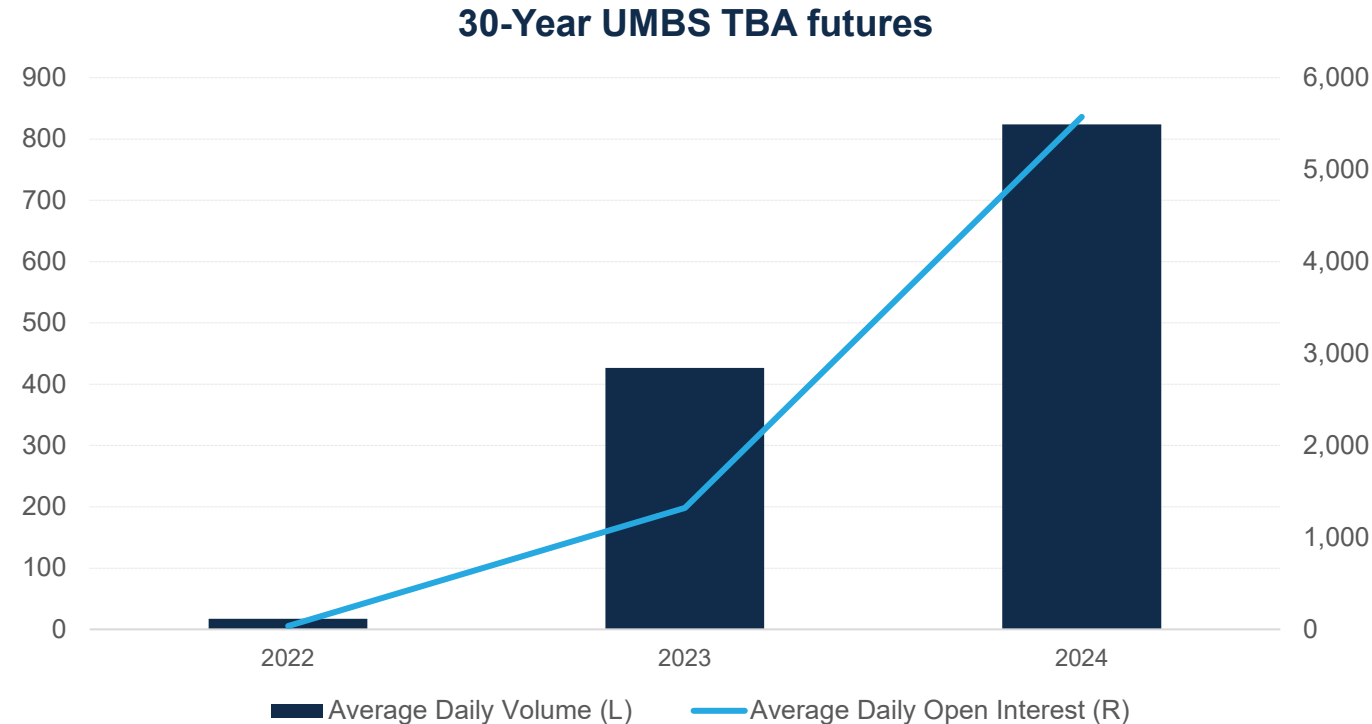
Growing buyside adoption helped Credit futures crescendo into year-end



Source: CME Group

Mortgage futures

The TBA futures market saw strong growth, bringing efficient, all-to-all, electronic access to the second largest fixed income market in US



Disclaimer

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