

A close-up photograph of an hourglass with blue sand, set against a solid blue background. The hourglass is positioned vertically, with the top bulb containing a small amount of sand. The sand is falling through the narrow neck into the bottom bulb. The lighting is soft, highlighting the texture of the sand and the glass.

This webinar will begin shortly.

FIA



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- The webinar will be recorded and posted to the FIA website within 24 hours of the live webinar.
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Trends in ETD Trading Q3 2023

2 November 2023

Presenter: Will Acworth, Senior Vice President, FIA



Agenda

Overview

- Another Record in Quarterly Volume

Equities

- Surge in Zero Day Options Trading
- Further Growth in Total Return Futures

Rates

- Record Open Interest in Treasury Futures
- Record Open Interest in Brazil's DI Futures

Commodities

- Crude Oil – Busy Year for Gulf Coast Contracts
- Metals – Iron Ore, Lead, Cobalt and Lithium

Appendix - Exchange Rankings

Methodology

- FIA collects data on volume and open interest from 85 exchanges and clearinghouses around the world
- Volume is measured in terms of the number of futures and options contracts traded and/or cleared per month
- Open interest is measured in terms of the number of contracts outstanding at the end of the month
- FIA publishes a monthly summary on its website and distributes the summary to FIA members
- For more information, contact data@fia.org

FIA ETD VOLUME
Monthly and open interest report for exchange-traded derivatives

January 2022 Highlights

Worldwide volume of exchange-traded derivatives reached 6.08 billion contracts in the month of January, the third highest monthly total ever recorded. The January total was down 1% from December 2021 but up 30.2% from January 2021.

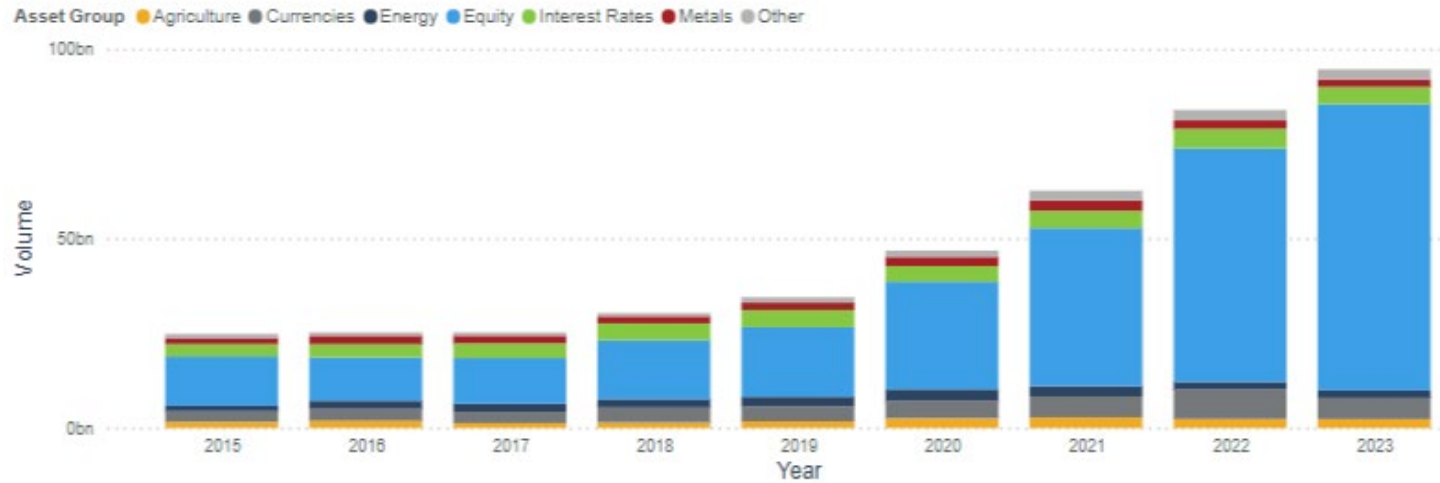
Total open interest at the end of January was 1 billion contracts. The January total was down 6.9% from December 2021 and down 2.9% from a year ago.

[DOWNLOAD](#)

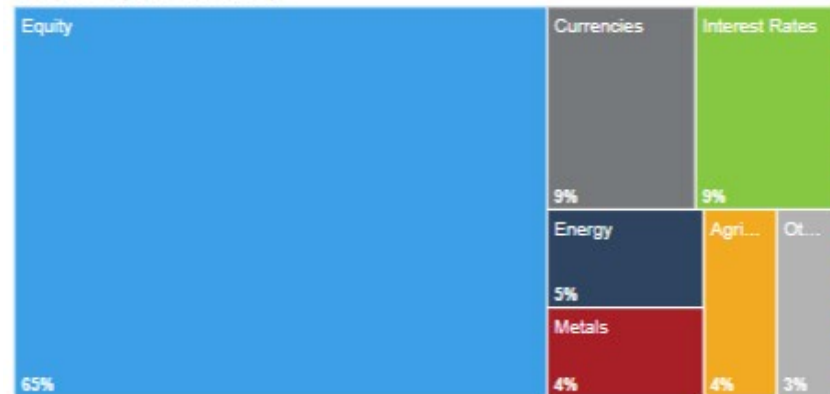
January 2022	Futures	Options	Total	M/M	Y/Y
Asia-Pacific	789,204,262	2,385,557,589	3,174,761,851	-5.4%	53.3%
North America	436,941,886	994,474,148	1,431,416,034	11.1%	14.8%
Latin America	564,922,873	212,993,199	777,916,072	11.5%	8.2%
Europe	382,754,469	89,610,656	472,365,125	4.4%	13.6%
Other	217,116,361	6,043,184	223,159,545	-35.8%	2.8%
Grand Total	2,390,939,851	3,688,678,776	6,079,618,627	-1.0%	30.2%
M/M	-5.9%	2.4%	-1.0%		
Y/Y	1.9%	58.8%	30.2%		

ETD Tracker – FIA’s Data Visualization Tool

Volume by Year



Volume by Asset Group



Asset Group	Subcategory	Volume
Equity	Equity Index Products	181,936,032,815
Equity	Individual Security Products	71,447,547,789
Currencies	USD vs Asia Pacific	23,698,387,228
Equity	Exchange Traded Products (ETP/ETF/ETN)	23,386,449,226
Interest Rates	STIRS	19,246,196,850
Interest Rates	Medium Term (2-10 years)	14,080,788,665
Currencies	USD vs Europe, Middle East & Africa	8,409,060,092
Metals	Steel	6,151,334,739
Energy	Brent	6,014,711,370
Currencies	USD vs Americas	5,448,092,162
Interest Rates	Long Term (>10 years)	3,459,455,357
Energy	Natural Gas	3,449,464,786
Energy	WTI	3,249,333,091
Totals		428,074,989,071

The ETD Tracker consists of interactive visualizations on FIA’s website that allow users to view monthly data on volume and open interest in the global futures and options markets, with filters based on year and month, region and jurisdiction, asset group and type of product. The ETD Tracker also includes visualizations that rank exchanges by total volume in the latest month and year to date as well as open interest in the latest month. The visualizations are powered by FIA Tech, an independent vendor of technology solutions for the exchange-traded derivatives industry.

[ETD Tracker | FIA](https://www.fia.org/fia/etd-tracker)

<https://www.fia.org/fia/etd-tracker>



Overview – Global Volume and Open Interest in Q3 2023

Type	Jan-Sep 2023 Volume	Change vs. Last Year	Sep 2023 Open Interest	Change vs. Last Year
Options	72,617,316,406	88.1%	931,140,314	6.9%
Futures	21,872,205,003	-0.9%	306,519,870	3.7%
Total	94,489,521,409	55.8%	1,237,660,184	6.1%

Region	Jan-Sep 2023 Volume	Change vs. Last Year	Sep 2023 Open Interest	Change vs. Last Year
Asia-Pacific	69,381,282,859	94.4%	123,081,942	16.5%
North America	13,253,582,216	5.3%	626,569,591	-0.5%
Latin America	6,463,226,280	0.7%	196,835,458	51.6%
Europe	3,611,226,554	-3.8%	259,277,552	0.0%
Other	1,780,203,500	-19.9%	31,895,641	-23.7%
Total	94,489,521,409	55.8%	1,237,660,184	6.1%

Note: Other consists of Greece, Israel, South Africa and Turkey

Overview – Global Volume and Open Interest in Q3 2023

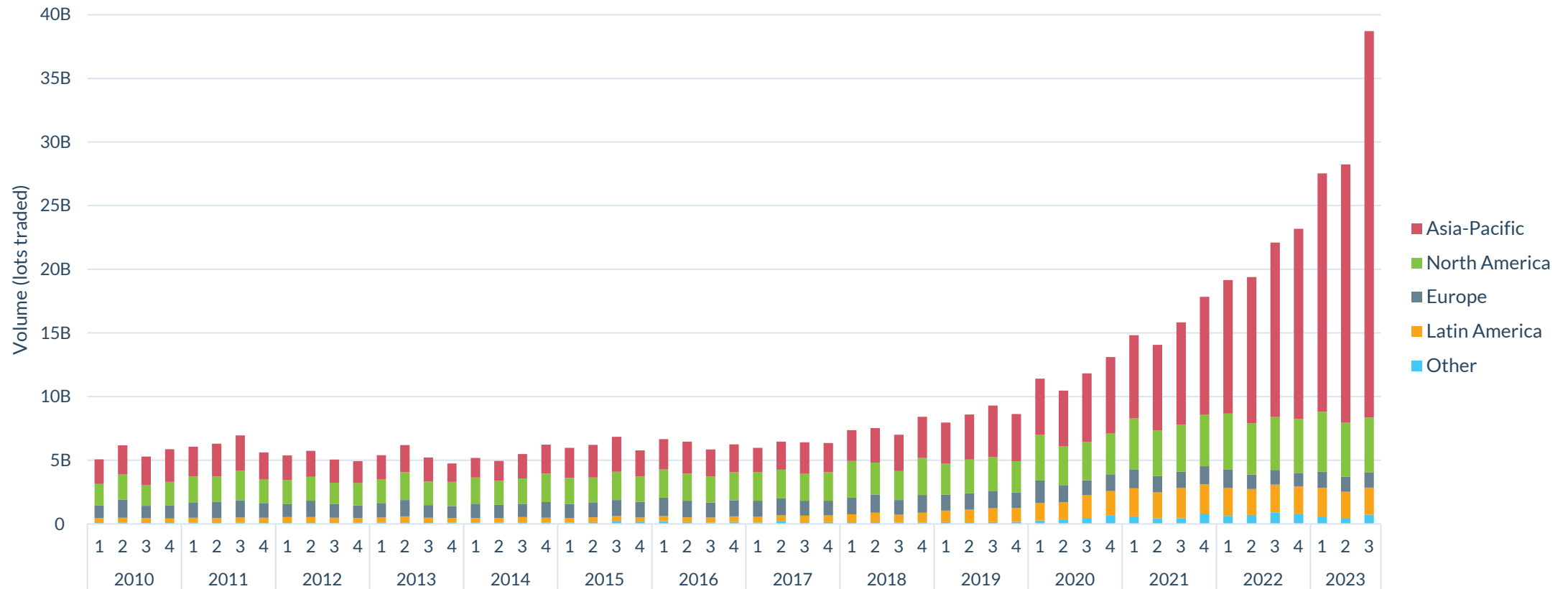
Category	Jan-Sep 2023 Volume	Change vs. Last Year	Sep 2023 Open Interest	Change vs. Last Year
Equity	75,413,444,186	70.7%	833,617,249	0.3%
Currencies	5,560,868,286	-0.5%	46,366,117	-2.7%
Interest Rates	4,531,048,920	14.9%	204,220,601	29.0%
Other	2,742,826,698	36.3%	30,005,660	18.9%
Energy	2,360,243,724	32.9%	29,545,457	18.0%
Agriculture	1,985,253,292	27.6%	72,930,875	15.2%
Metals	1,895,836,303	18.0%	20,974,225	33.2%
Total	94,489,521,409	55.8%	1,237,660,184	6.1%

Note: Other includes futures and options based on chemicals, plastics, cryptocurrencies, emissions, freight, volatility, weather

Overview – Another Quarter of Record Volume

Global volume in Q3 2023 was 38.7 billion contracts, up 452% from the same quarter five years ago

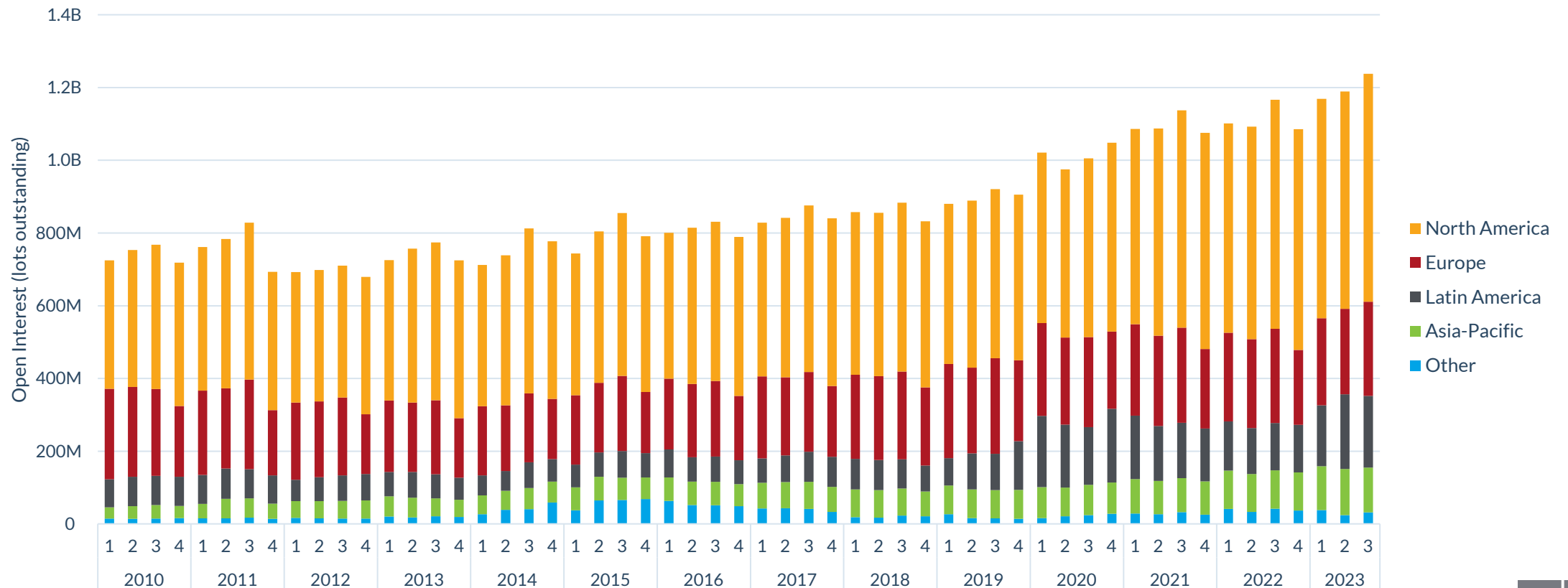
Quarterly Volume by Region 2010 to 2023



Open Interest – Another Record in Q2

Global OI at end of Q3 2023 was 1.24 billion contracts, up 40% from the same quarter five years ago

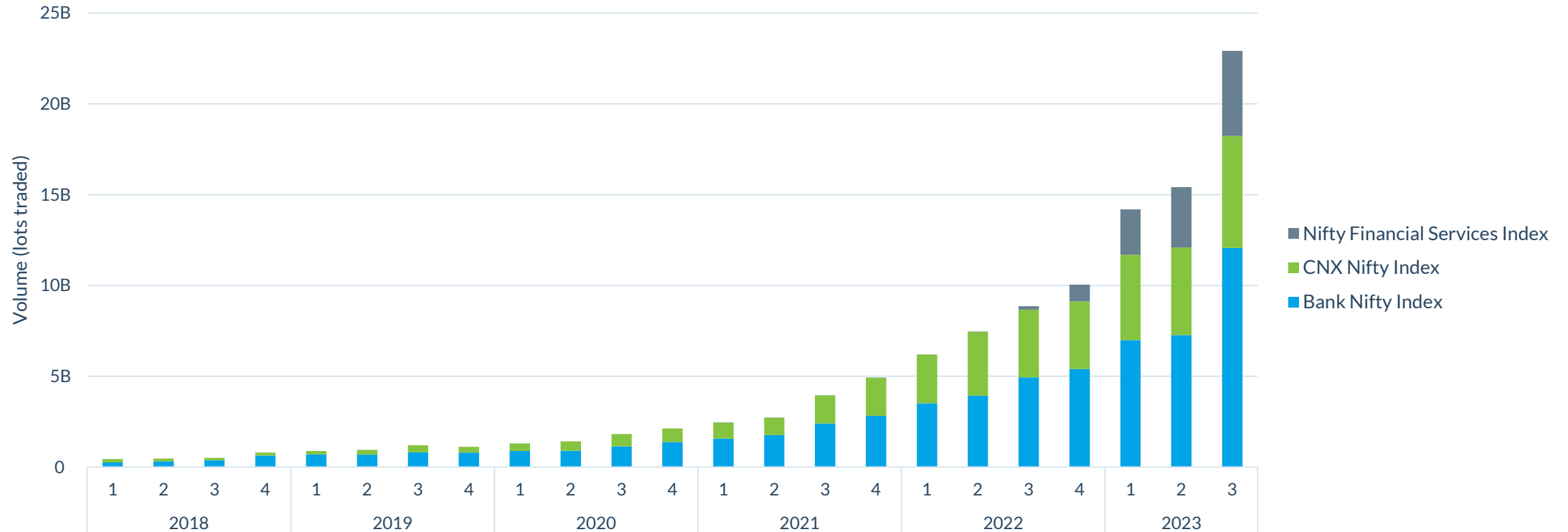
Quarterly OI by Region, 2010 to 2023



What Is Driving the Growth?

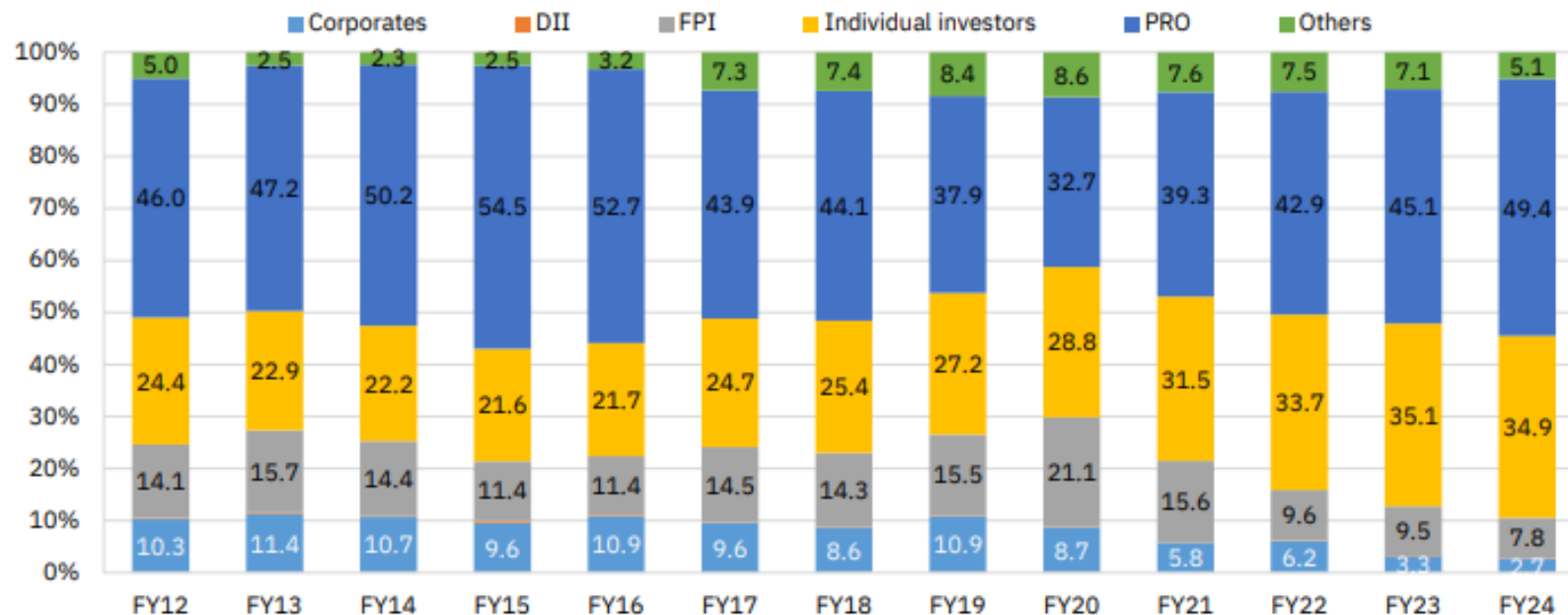
Nearly 23 billion equity index options traded on NSE India in Q3, up from 8.9 billion a year ago. In the first half of 2023, the top three index options on NSE accounted for more than half of all futures and options traded worldwide.

Top Three Index Options on NSE - Quarterly Volume



India's Equity Index Options Market: Dominated by Proprietary Traders and Retail

Figure 242: Trends in share of client participation in Index Options (premium turnover) at NSE (%)



Source: NSE EPR. Note: DII: Domestic Institutional Investors include Banks, Mutual Funds, Insurance Companies, NBFCs, Domestic VC Funds, AIFs, PMS clients etc., FPI: Foreign Institutional Investors include FPIs, FDIs, Foreign VC Funds, OCB and Foreign Nationals etc., Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, Depository Receipts and Statutory Bodies, etc. Figures in brackets indicate negative numbers. Above data represents share in gross turnover i.e., buy-side turnover + sell-side turnover.

NSE Market Pulse:

- One third of the turnover in index options comes from individuals.
- One half comes from proprietary traders.
- Share of turnover from foreign institutional investors has declined to 7.8%

Source: NSE Market Pulse October 2023. Note: fiscal year starts in March

What's Happening in the Institutional Markets?

FIA Index Shows Gradual Increase in Institutional Trading of Futures over the Last Three Years

FIA has created an index to track institutional use of futures at the global level.

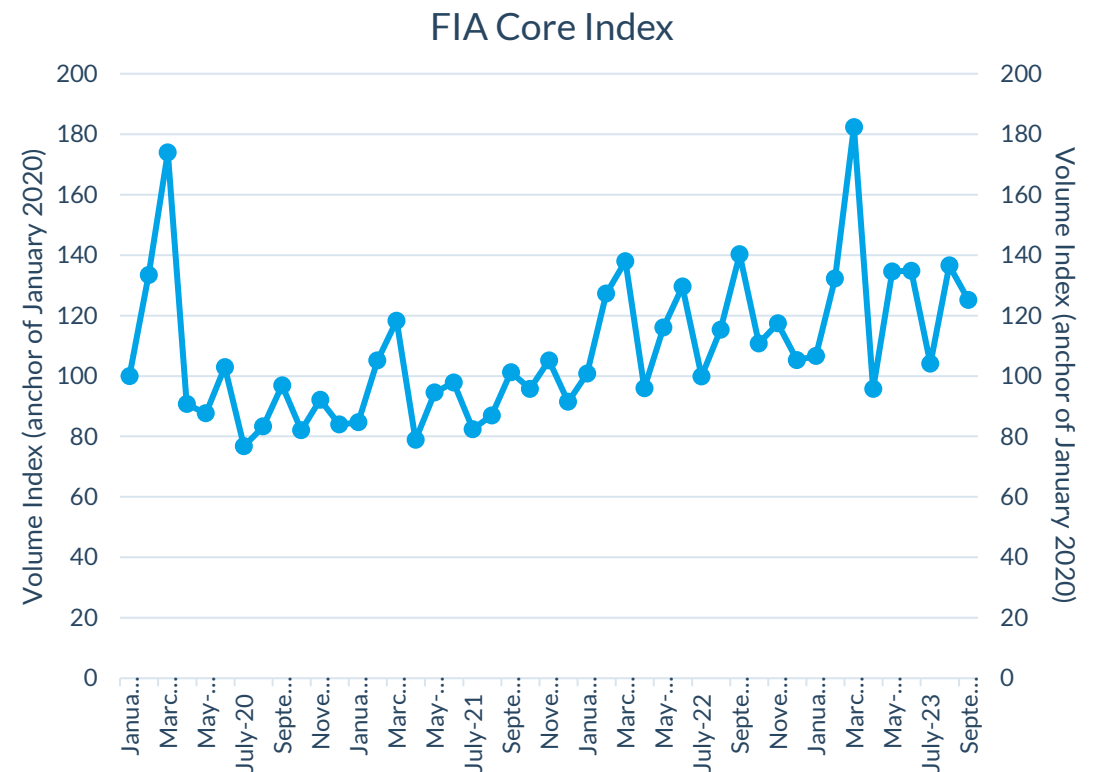
The index consists of 49 futures across four asset classes – equity indices, interest rates, commodities, and currencies.

The contracts were selected based on the size of the market and the depth of use by institutions such as asset managers, hedge funds, and commodity producers.

The index was calculated at 125 in September 2023, indicating that volume in the institutional side of the global futures markets was 25% higher than the starting point in January 2020.

The index peaked at 182 in March 2023, when interest rate futures trading in the US and the EU surged in response to turmoil in the banking sector.

For more information, contact data@fia.org



Equity Index – Top Contracts by Volume – Part One

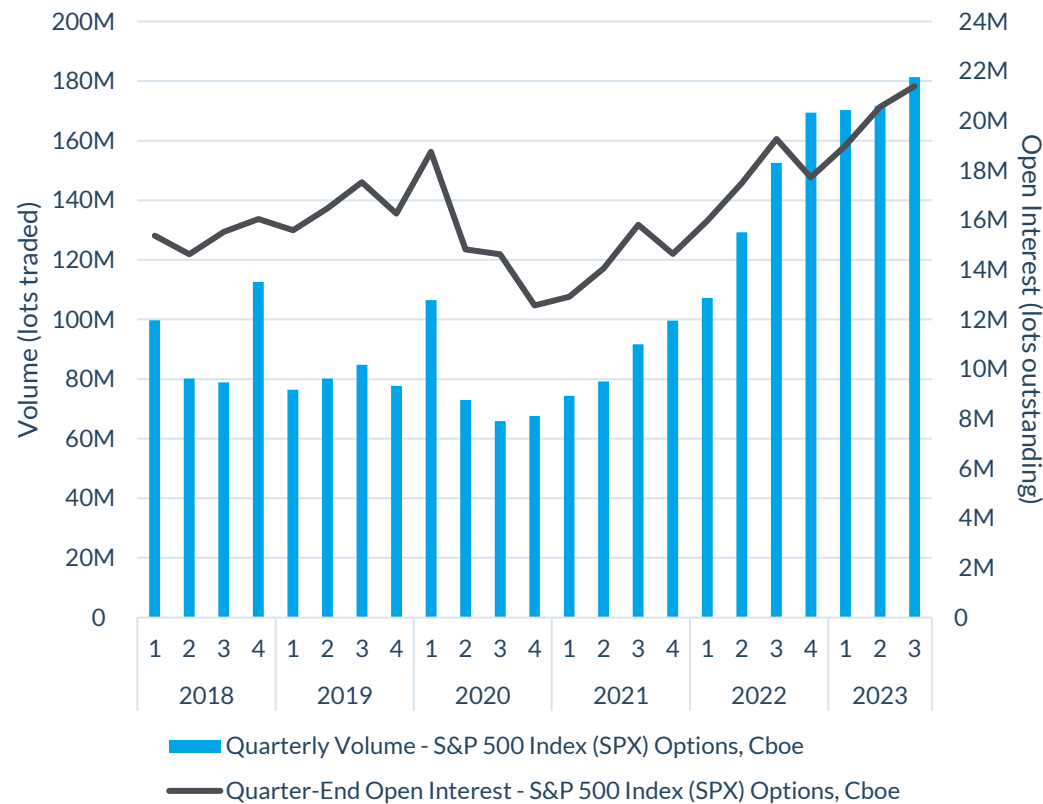
Rank	Contract and Exchange	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
1	Bank Nifty Index Options, National Stock Exchange of India	26,323,032,589	112.6%	5,182,069	107.3%
2	CNX Nifty Index Options, National Stock Exchange of India	15,695,597,219	57.8%	5,244,762	31.0%
3	Nifty Financial Services Index Options, National Stock Exchange of India	10,502,146,374	5286.1%	1,484,765	1742.4%
4	Mini Ibovespa Index (WIN) Futures, B3	2,862,618,452	-7.3%	1,228,122	1.3%
5	SPDR S&P 500 ETF Options *	1,615,487,781	21.1%	24,826,652	4.7%
6	S&P Sensex 30 Index Options, BSE ¹	1,323,666,734	n/a	27,433	n/a
7	Nifty Midcap Select Index Options, National Stock Exchange of India	845,353,903	17928932.9%	29,892	n/a
8	Powershares QQQ ETF Options *	604,852,027	21.2%	14,120,624	21.6%
9	S&P 500 Index (SPX) Options, Cboe Options Exchange	523,322,933	34.5%	21,392,507	11.0%
10	E-mini S&P 500 Futures, Chicago Mercantile Exchange	338,497,358	-10.3%	2,117,920	-7.2%
11	Kospi 200 Options, Korea Exchange	332,447,579	-15.1%	2,189,324	-32.4%
12	Micro E-mini Nasdaq 100 Index Futures, Chicago Mercantile Exchange	201,618,674	-29.0%	77,337	-43.4%
13	Micro E-mini S&P 500 Index Futures, Chicago Mercantile Exchange	192,247,845	-25.3%	128,145	2.3%
14	Euro Stoxx 50 Index (FESX) Futures, Eurex	188,837,779	-13.0%	2,723,258	-40.8%
15	Nikkei 225 Mini Futures, Osaka Exchange	187,402,877	-13.1%	460,914	-14.2%

Equity Index – Top Contracts by Volume – Part Two

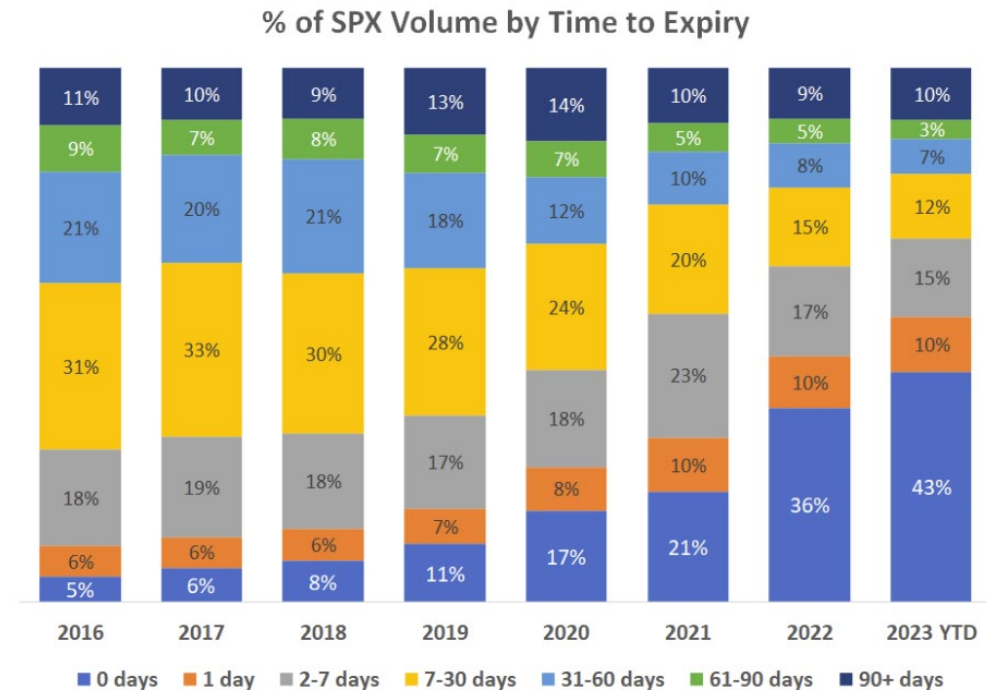
Rank	Contract and Exchange	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
16	Kospi 200 Weekly Options, Korea Exchange	187,319,001	3.1%	45,332	-80.2%
17	iShares Russell 2000 ETF Options *	182,128,018	15.7%	11,054,111	28.6%
18	Euro Stoxx 50 Index (OESX) Options, Eurex	181,919,722	-3.3%	32,711,013	-5.1%
19	E-mini S&P 500 Options, Chicago Mercantile Exchange	151,709,186	44.2%	3,032,210	36.1%
20	Taiex (TXO) Options, Taiwan Futures Exchange	130,329,545	-10.7%	359,199	-16.1%
21	E-mini Nasdaq 100 Futures, Chicago Mercantile Exchange	124,713,338	-6.7%	244,429	-13.0%
22	FTSE China A50 Index Futures, Singapore Exchange	66,854,730	-13.8%	796,850	-10.8%
23	iShares MSCI Emerging Markets ETF Options *	58,432,077	70.0%	8,656,300	11.2%
24	Euro Stoxx Banks Futures, Eurex	57,835,719	-13.8%	953,388	-39.9%
25	Kospi 200 Futures, Korea Exchange	47,054,043	-13.8%	332,804	-16.6%
26	BIST 30 Index Futures, Borsa Istanbul	46,386,901	-35.3%	239,509	-32.2%
27	SET50 Futures, Thailand Futures Exchange	46,044,567	13.6%	702,002	41.8%
28	Mini Taiex (MTX) Futures, Taiwan Futures Exchange	44,614,749	-24.4%	58,277	-13.9%
29	India 50 Index Options, India International Exchange	44,279,784	-64.2%	311	33.5%
30	Euro Stoxx Banks Options, Eurex	43,272,211	-17.3%	9,299,295	-27.8%

SPX Options – Rise of Zero Day to Expiration Options

Both volume and open interest in SPX options hit a record high in Q3.

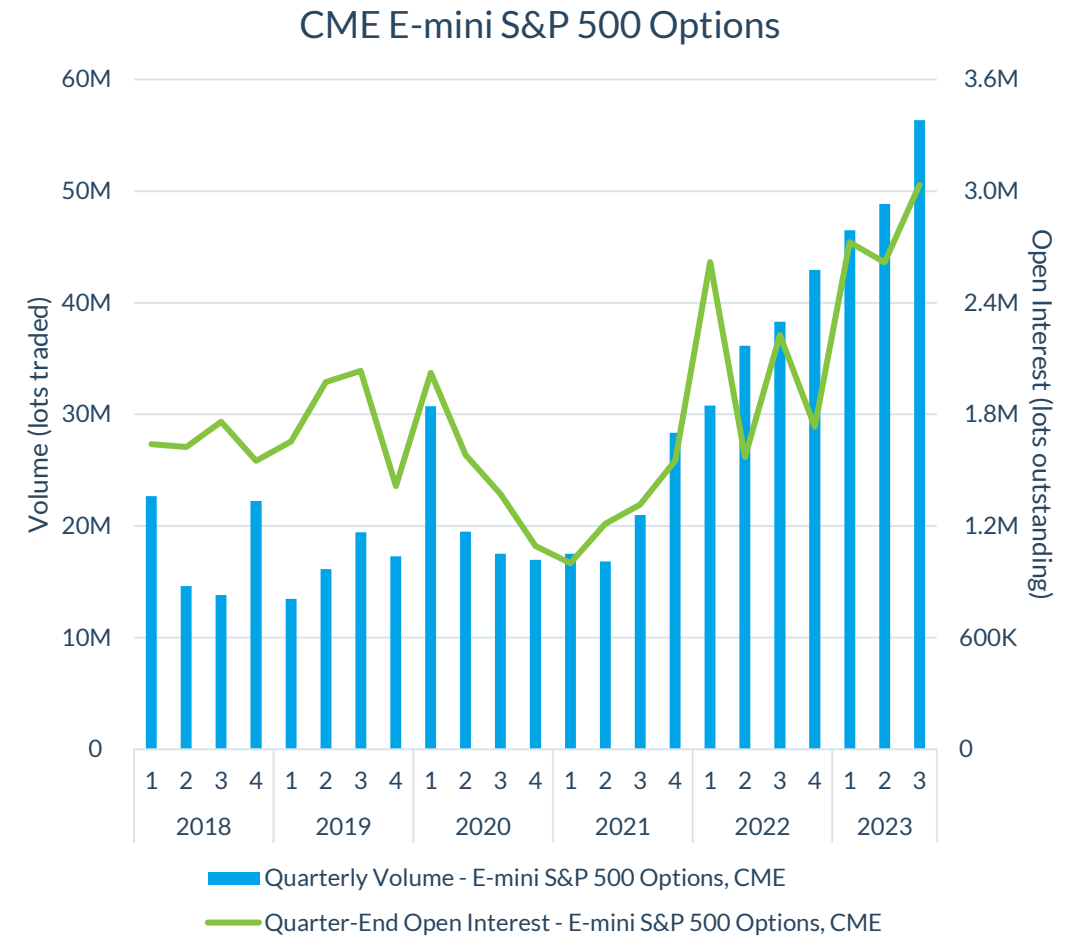
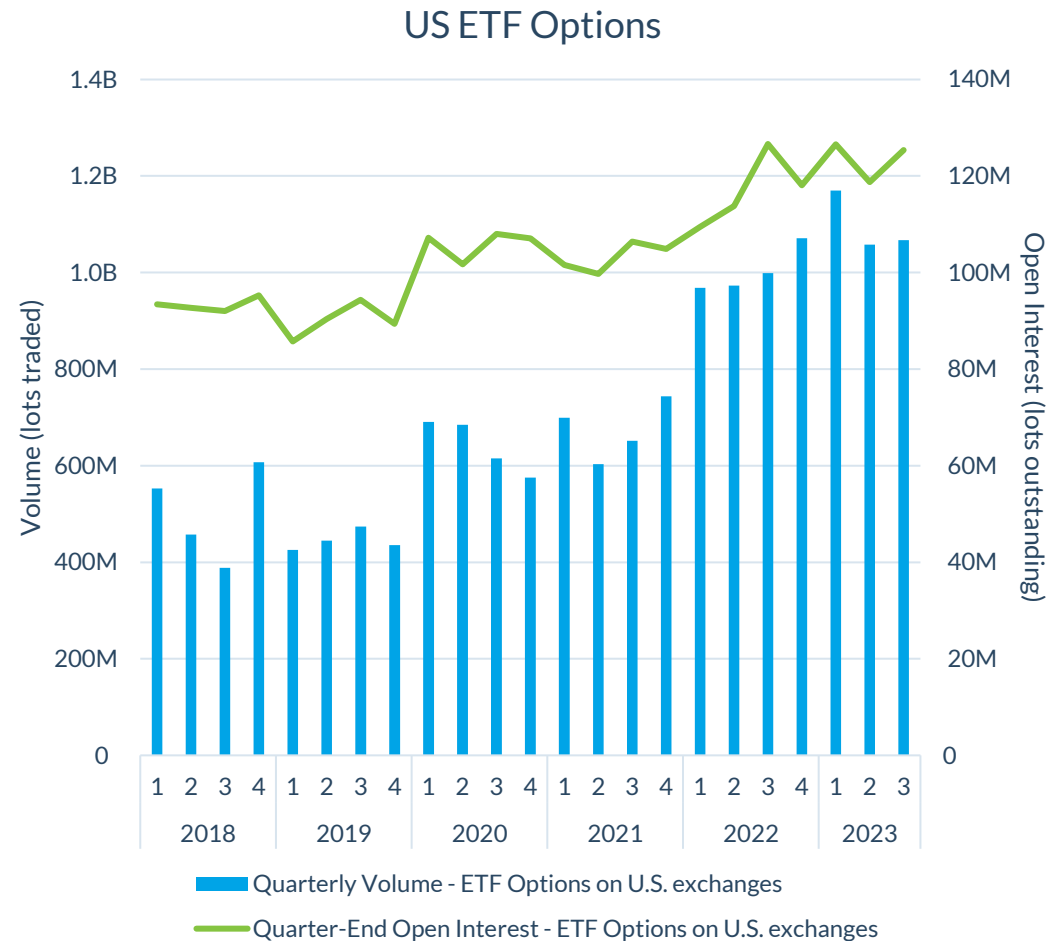


Almost half of all SPX options traded in 2023 expired the same day.



Source: [Volatility Insights: Evaluating the Market Impact of SPX ODTE Options \(cboe.com\)](https://www.cboe.com/ODTE_Options)

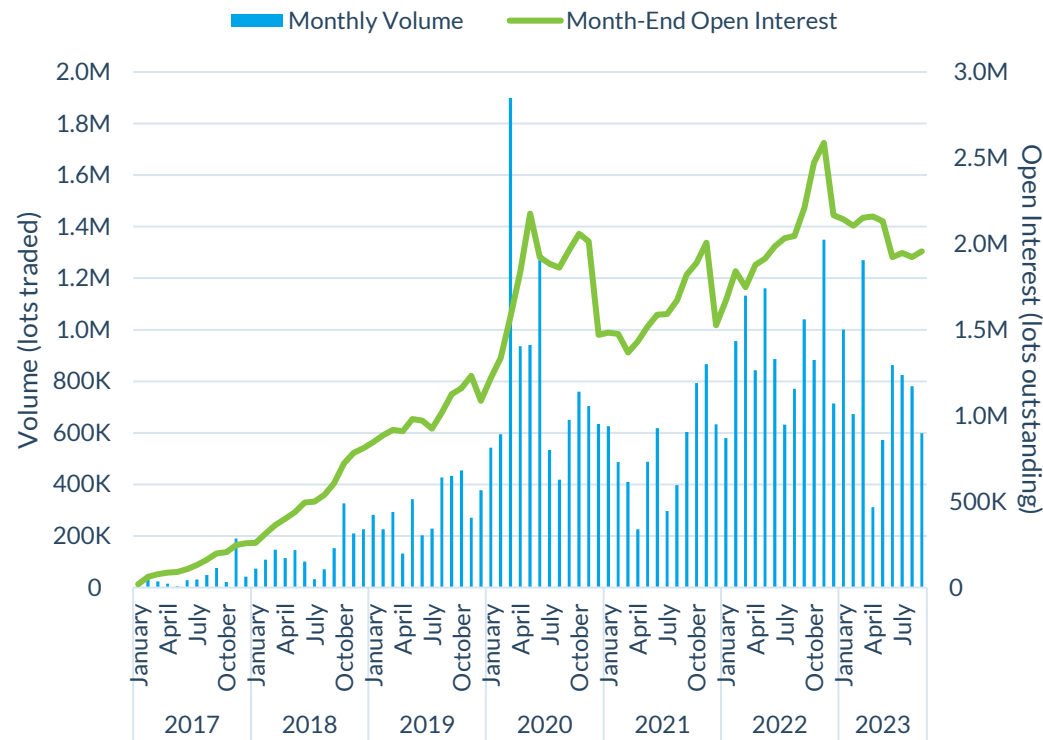
ETF and Futures Options – Two Other Growth Areas



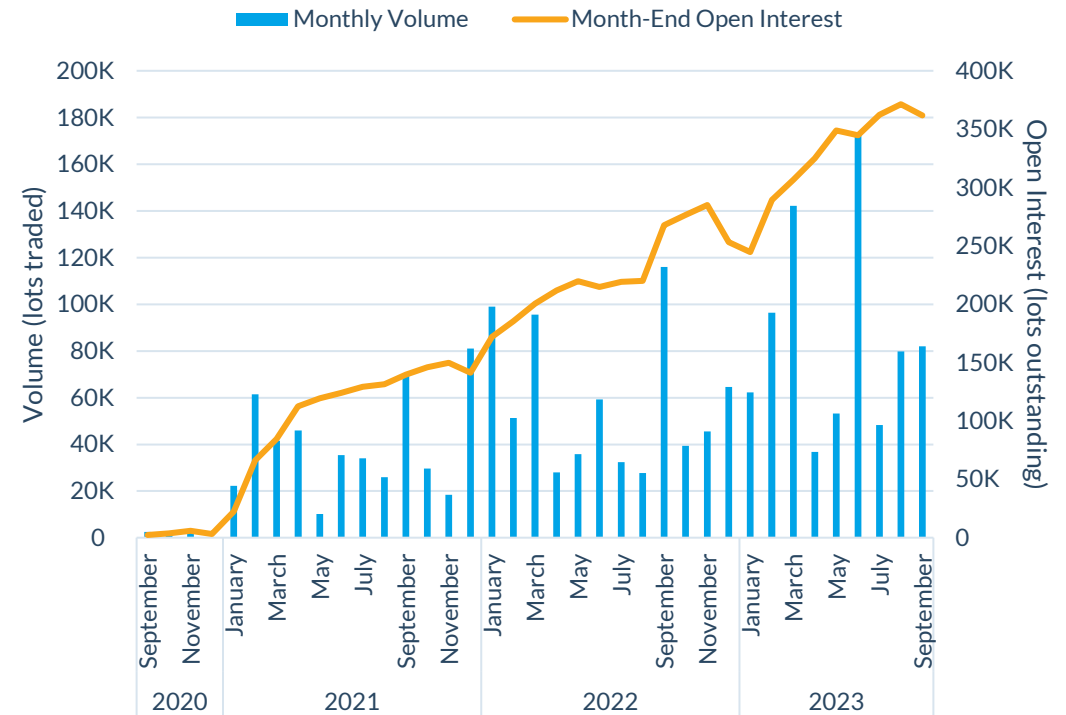
Total Return Futures: Inflows from Equity Swap Markets

The implementation of uncleared margin requirements on bilateral OTC trades has encouraged banks and fund managers to shift to futures designed to match the returns on equity swaps.

Euro Stoxx 50 Total Return Futures, Eurex



Adjusted Interest Rate S&P 500 Total Return Futures, CME



Interest Rates – Top Bond Contracts by Volume

Rank	Contract and Exchange	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
1	10 Year Treasury Note Futures, Chicago Board of Trade	359,875,034	0.9%	4,742,137	23.7%
2	5 Year Treasury Note Futures, Chicago Board of Trade	279,599,414	10.6%	5,578,262	40.4%
3	Euro-Bund (FGBL) Futures, Eurex	159,460,595	-5.0%	1,214,024	-3.8%
4	2 Year Treasury Note Futures, Chicago Board of Trade	144,146,520	8.9%	3,922,314	100.7%
5	Euro-Bobl (FGBM) Futures, Eurex	130,068,263	5.0%	1,161,004	-25.6%
6	10 Year Treasury Note Options, Chicago Board of Trade	125,431,120	0.8%	2,475,575	-10.4%
7	Euro-Schatz (FGBS) Futures, Eurex	115,709,590	5.3%	1,911,884	-13.3%
8	Ultra 10 Year Treasury Note Futures, Chicago Board of Trade	86,430,682	19.3%	1,883,783	37.7%
9	30 Year Treasury Bond Futures, Chicago Board of Trade	76,398,460	1.4%	1,409,280	16.9%
10	5 Year Treasury Note Options, Chicago Board of Trade	54,819,298	13.6%	1,201,087	-8.3%
11	Ultra Treasury Bond Futures, Chicago Board of Trade	52,834,079	18.4%	1,558,002	10.7%
12	Long Gilt Futures, ICE Futures Europe	41,684,962	-18.3%	487,568	-11.5%
13	Euro-OAT (FOAT) Futures, Eurex	37,880,054	-12.4%	399,789	-9.4%
14	10 Year Treasury Bond Futures, ASX 24	35,704,174	-3.1%	1,040,223	10.8%
15	Euro-BTP (FBTP) Futures, Eurex	35,698,027	7.3%	377,003	-15.4%

Interest Rates – Top Bond Contracts in APAC

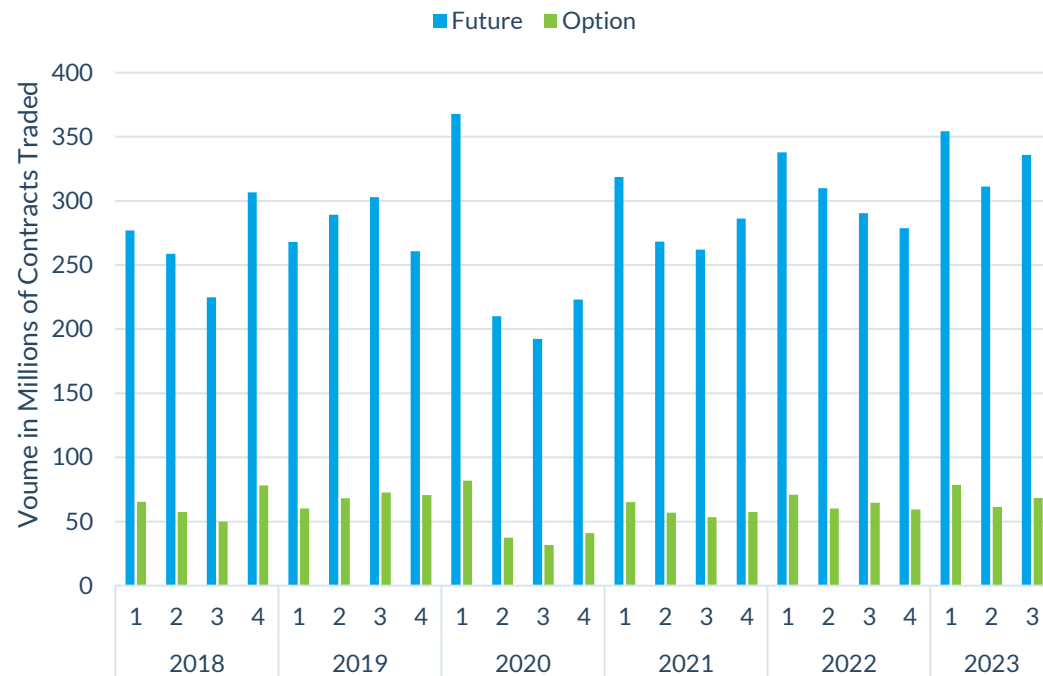
Rank	Contract and Exchange	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
1	10 Year Treasury Bond Futures, ASX 24	35,704,174	-3.1%	1,040,223	10.8%
2	3 Year Treasury Bond Futures, ASX 24	35,140,598	8.3%	774,489	-1.9%
3	3 Year Treasury Bond Futures, Korea Exchange	29,942,147	-1.2%	398,370	27.4%
4	10 Year Treasury Bond Futures, China Financial Futures Exchange	14,206,656	1.8%	195,836	0.6%
5	10 Year Treasury Bond Futures, Korea Exchange	12,486,978	0.6%	170,148	47.7%
6	5 Year Treasury Bond Futures, China Financial Futures Exchange	10,203,969	32.1%	117,726	-8.8%
7	2 Year Treasury Bond Futures, China Financial Futures Exchange	6,625,209	55.1%	70,477	18.8%
8	10 Year Japan Government Bond Futures, Osaka Exchange	6,420,246	3.1%	183,689	47.8%
9	30 Year Treasury Bond Futures, China Financial Futures Exchange ¹	1,669,790	n/a	40,233	n/a
10	Government of India Security Futures, National Stock Exchange of India	1,177,984	9.9%	52,454	-26.4%
11	Mini Japanese Government Bond Futures, Singapore Exchange	411,764	-22.6%	12,075	-16.4%
12	91-day Government of India (GOI) Treasury Bill Futures, BSE	399,850	-76.2%	12,050	-38.7%
13	5 Year Treasury Bond Futures, ASX 24	205,313	-47.7%	14,688	-37.4%
14	20 Year Treasury Bond Futures, ASX 24	129,204	-24.5%	16,969	-3.5%

¹ CFFEX began trading 30 Year Treasury Bond futures in April 2023

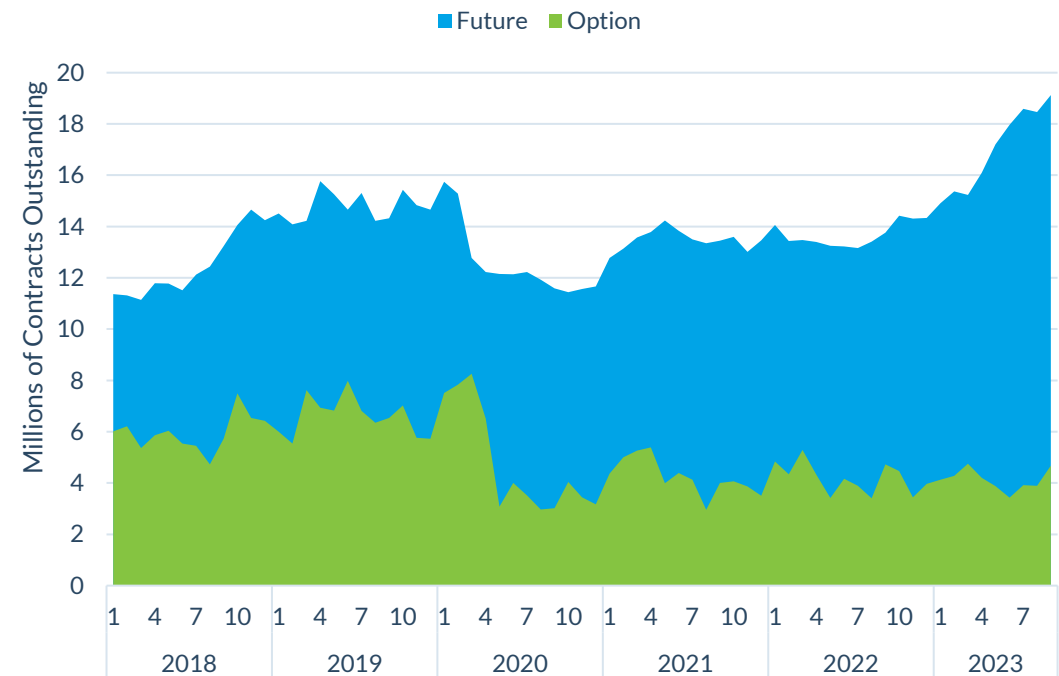
US Treasury Futures– Open Interest Continues to Climb

Open interest in Treasury futures reached 19.1 million contracts at the end of September, up 28% since year-end

US Treasury Futures and Options on Futures
Quarterly Volume



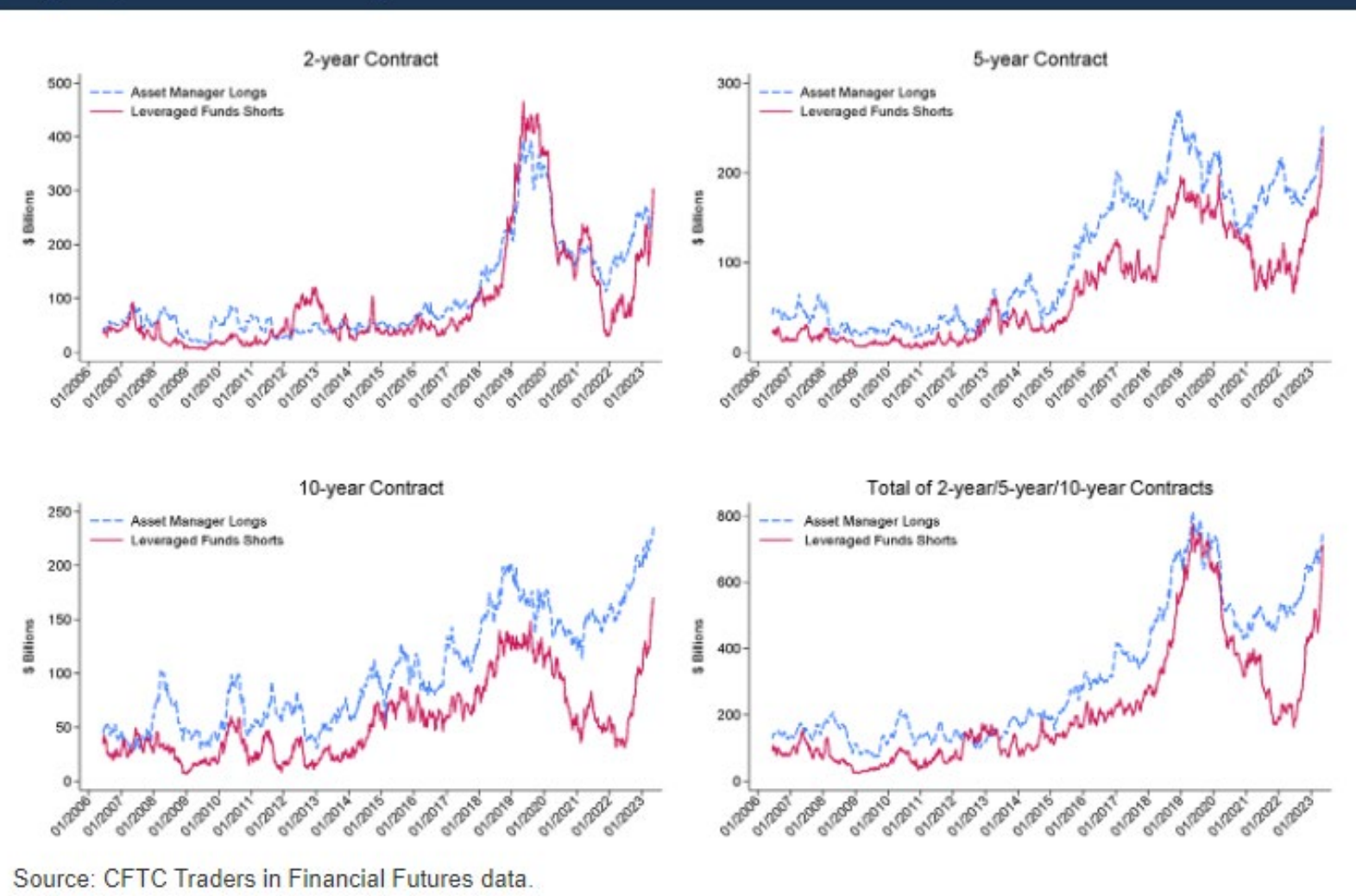
US Treasury Futures and Options on Futures
End-of-Month Open Interest



Treasuries: Return of the Basis Trade

A note published by the Federal Reserve in September found that hedge funds increased their short positions in the three main Treasury futures by \$411 billion between October 2022 and May 2023, and commented that these positions were part of cash-futures arbitrage strategy.

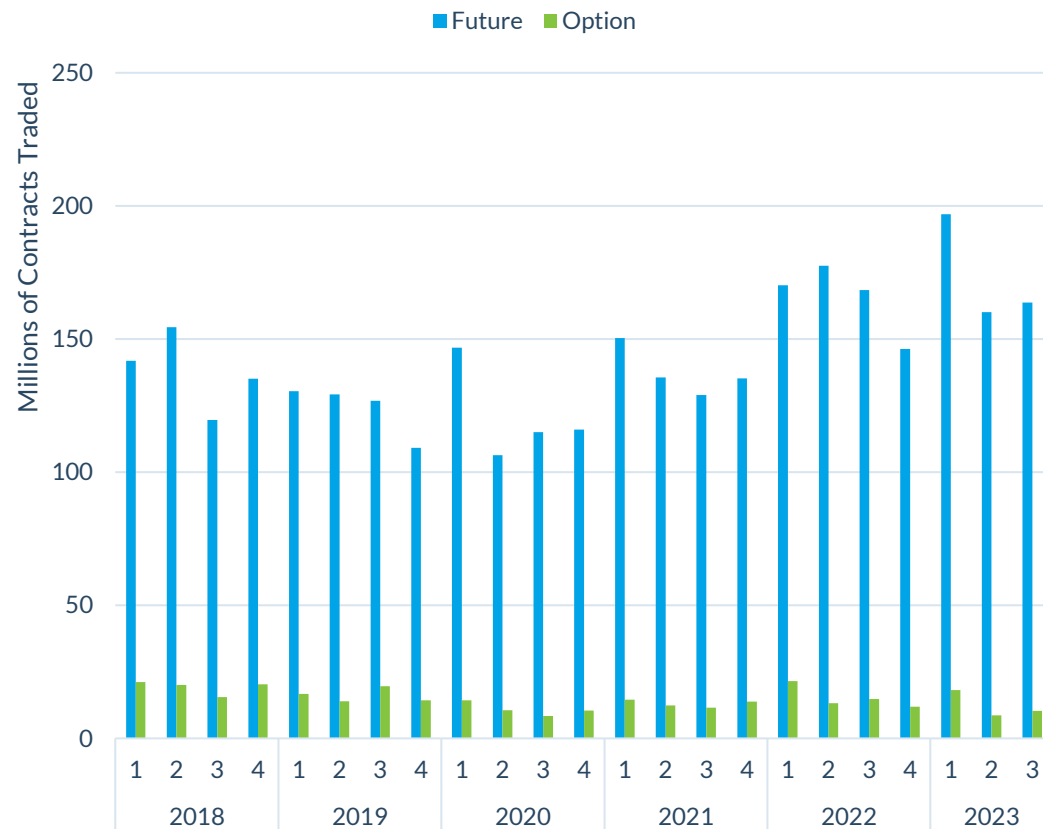
Figure 4. The Rise in Hedge Fund Short Futures



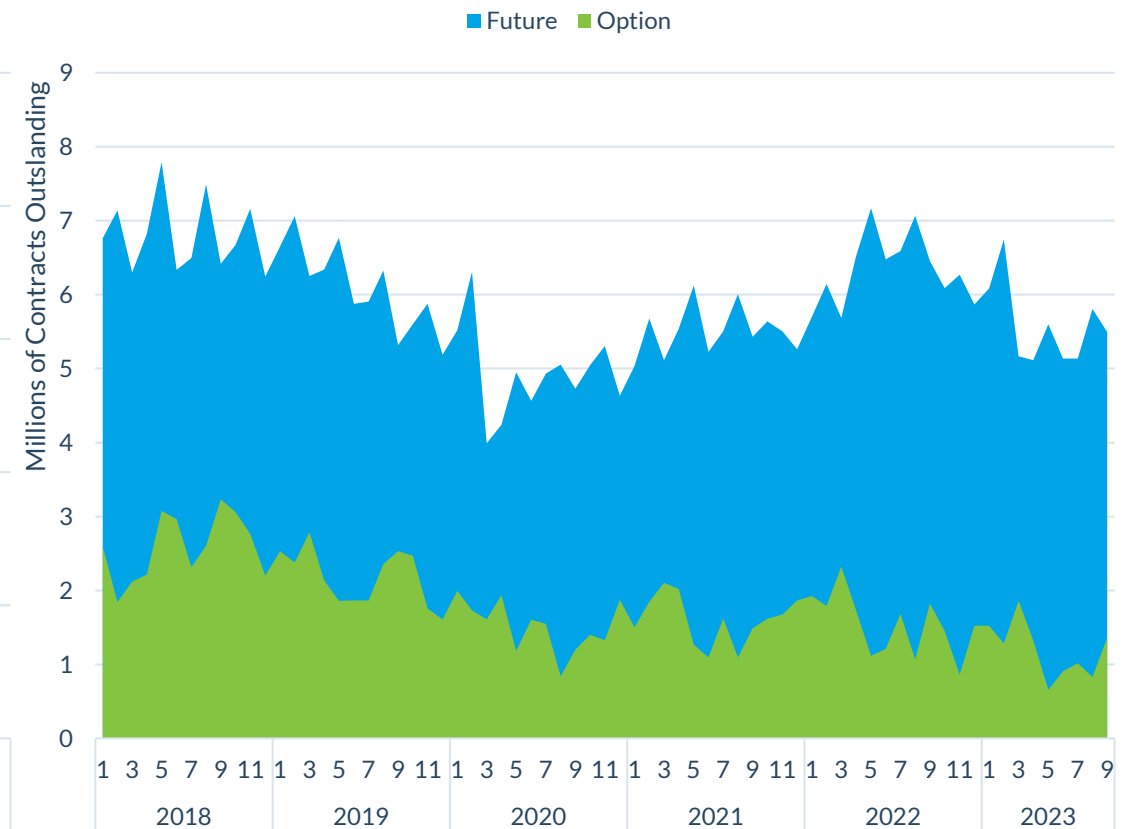
Source: [The Fed - Recent Developments in Hedge Funds' Treasury Futures and Repo Positions: is the Basis Trade "Back"? \(federalreserve.gov\)](https://www.federalreserve.gov)

EU Bond Futures and Options: New High for Futures Volume in Q1, But Open Interest Down from Last Year

Eurex Bond Futures and Options Quarterly Volume



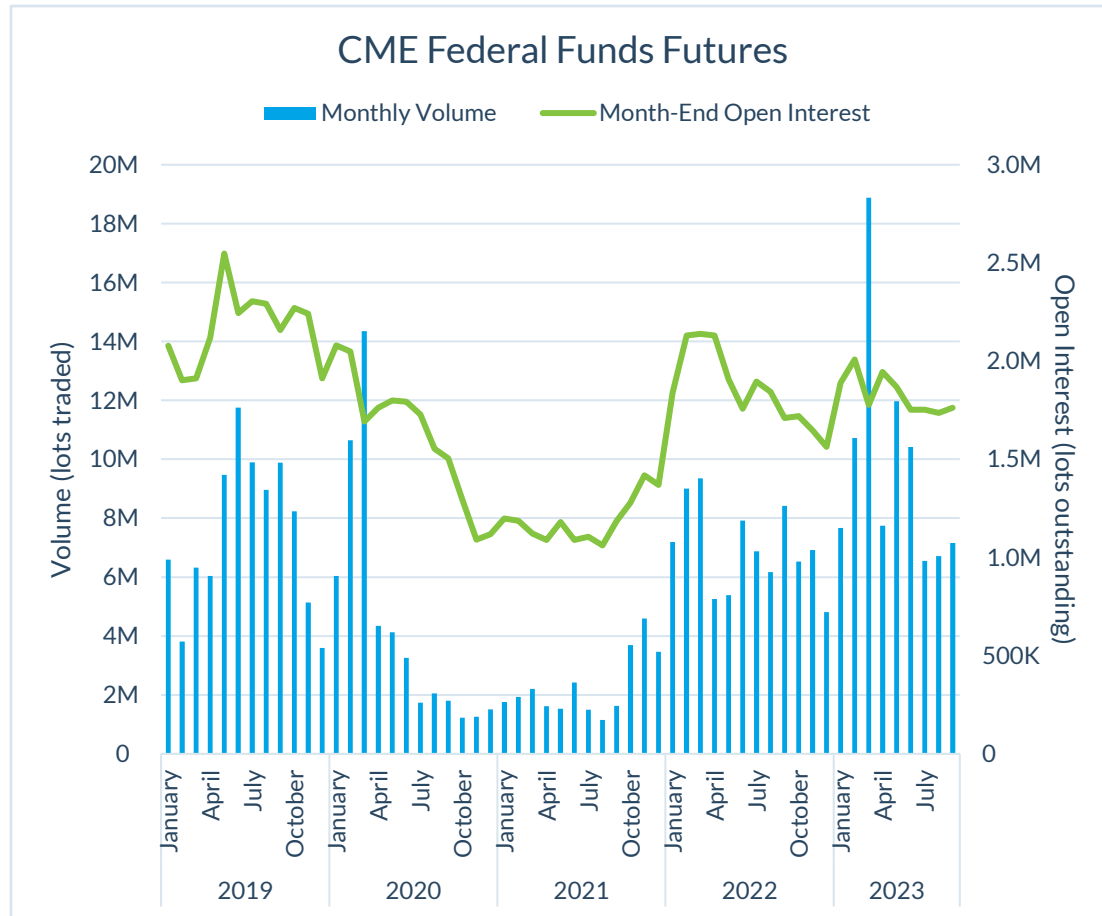
Eurex Bond Futures and Options on Futures End-of-Month Open Interest



Interest Rates – Top STIR Contracts by Volume

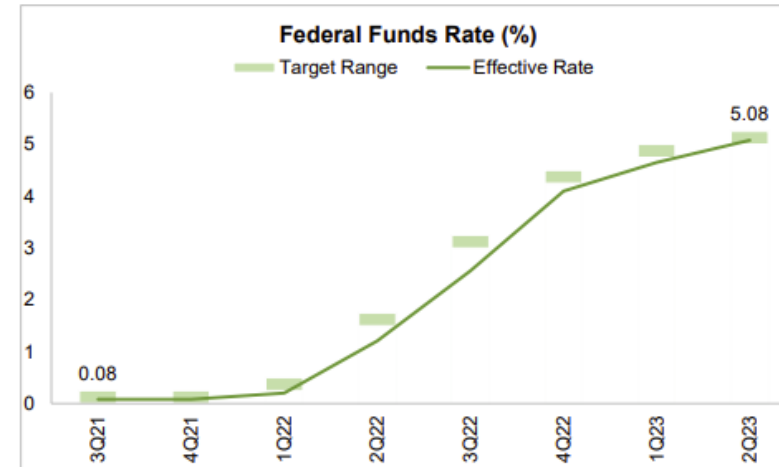
Rank	Contract and Exchange	Notional Size	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
1	One-Day Interbank Deposit (DI1) Futures, B3	BRL 100,000	652,986,688	33.1%	36,197,524	22.7%
2	3 Month SOFR Futures, Chicago Mercantile Exchange	USD 1,000,000	594,169,492	101.8%	9,730,038	38.3%
3	3 Month SOFR Options, Chicago Mercantile Exchange	USD 1,000,000	324,929,046	505.2%	35,826,490	161.1%
4	Average One-Day Interbank Deposit Rate Index (IDI) Options, B3	BRL 100,000	228,595,997	243.0%	57,388,650	339.0%
5	3 Month Euribor Futures, ICE Futures Europe	EUR 1,000,000	219,540,776	1.5%	4,056,545	-7.8%
6	Federal Funds Futures, Chicago Board of Trade	USD 5,000,000	87,825,930	33.9%	1,762,785	3.1%
7	3 Month SONIA Futures, ICE Futures Europe	GBP 1,000,000	72,664,071	31.0%	1,583,899	9.5%
8	3 Month Euribor Options, ICE Futures Europe	EUR 1,000,000	39,504,835	-22.5%	8,922,710	-25.9%
9	1 Month SOFR Futures, Chicago Mercantile Exchange	USD 1,000,000	30,976,884	91.3%	1,008,710	55.9%
10	90 Day Bank Bill Futures, ASX 24	AUD 1,000,000	25,593,277	41.0%	1,016,297	16.5%
11	3 Month Canadian Bankers Acceptance (BAX) Futures, Montreal Exch.	CAD 1,000,000	15,824,893	26.8%	581,185	-17.4%
12	3 Month SONIA Options, ICE Futures Europe	GBP 1,000,000	12,049,271	-11.6%	2,240,707	63.8%
13	DI x IPCA Spread (DAP) Futures, B3	BRL 100,000	10,824,196	66.0%	1,398,747	-2.6%
14	3 Month Euribor 1 Year Mid Curve Options, ICE Futures Europe	USD 1,000,000	6,210,087	-50.6%	748,992	-46.9%
15	3 Month CORRA (CRA) Futures, Montreal Exchange	CAD 1,000,000	4,485,959	2029.1%	566,647	1961.7%

STIRS: Fed Funds Trading Levels Off After Q1 Volatility



Federal Funds Rate (Fed Funds)

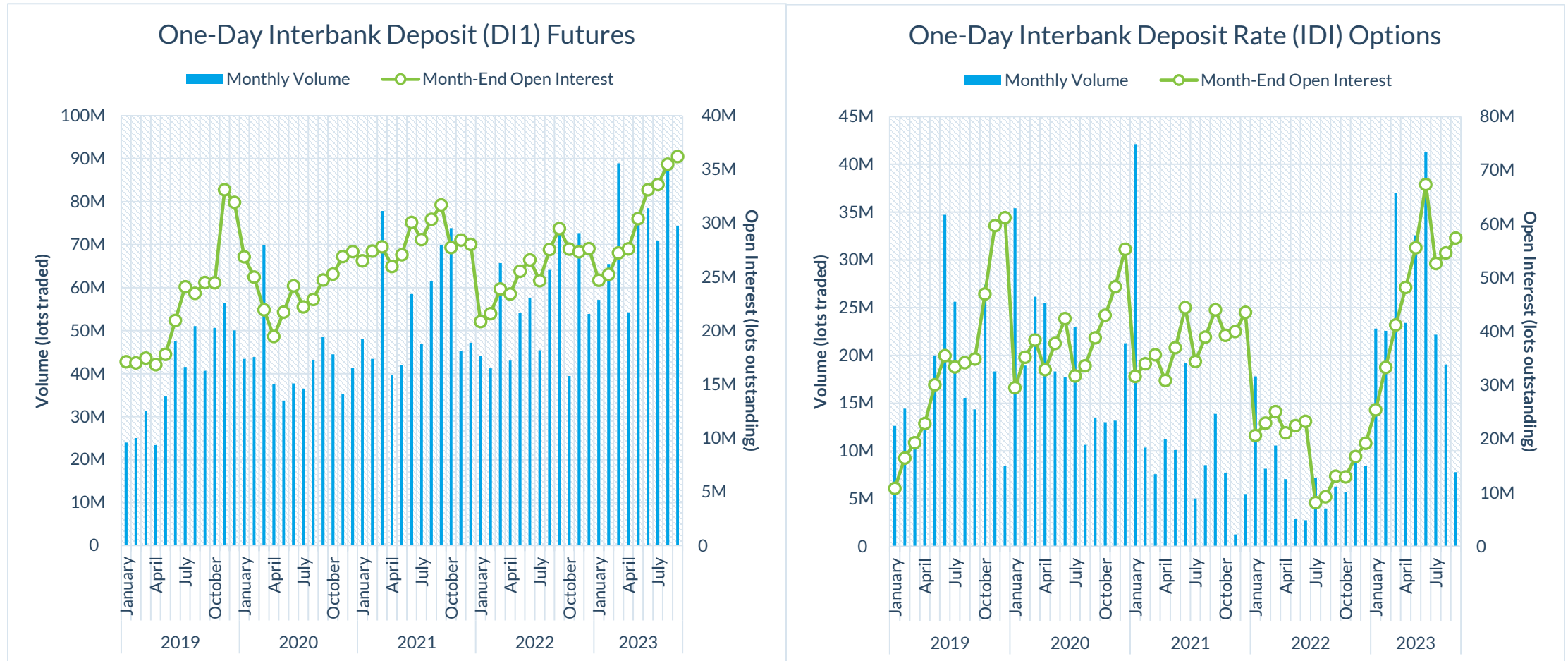
- At the quarter end: 5.00% (Lower Bound) - 5.25% (Upper Bound)
- Current: After the September FOMC meeting, the range stands at 5.25%-5.50%



Source: Bloomberg, SIFMA estimates

Source: [SIFMA Research Quarterly - Fixed Income Outstanding 2Q23](#)

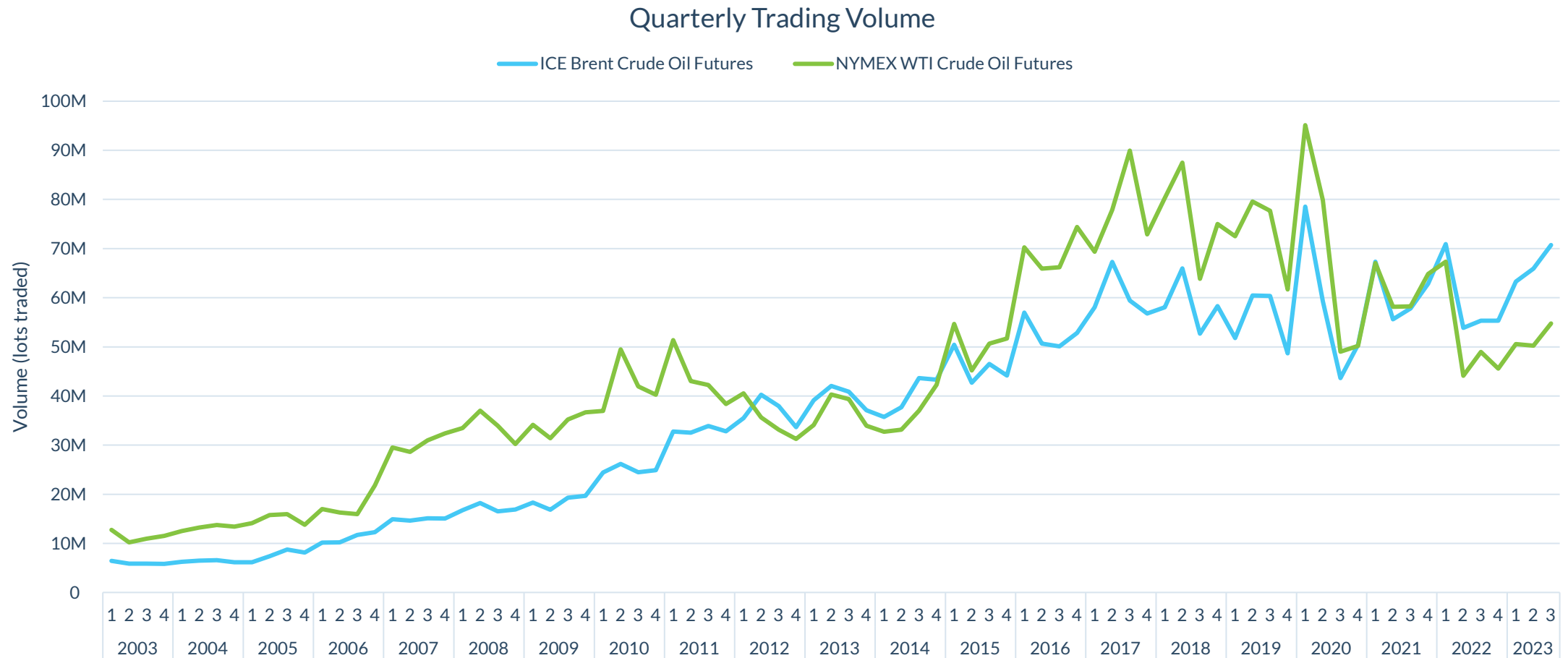
STIRS: Record Open Interest in DI Futures



Energy – Top Contracts by Volume

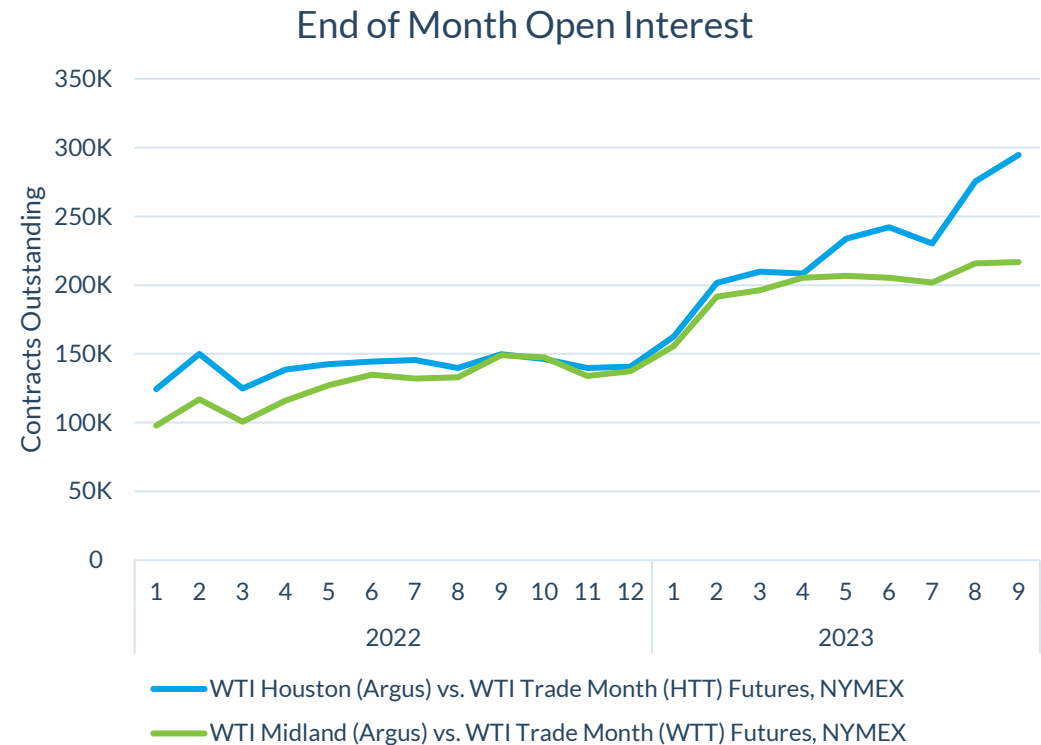
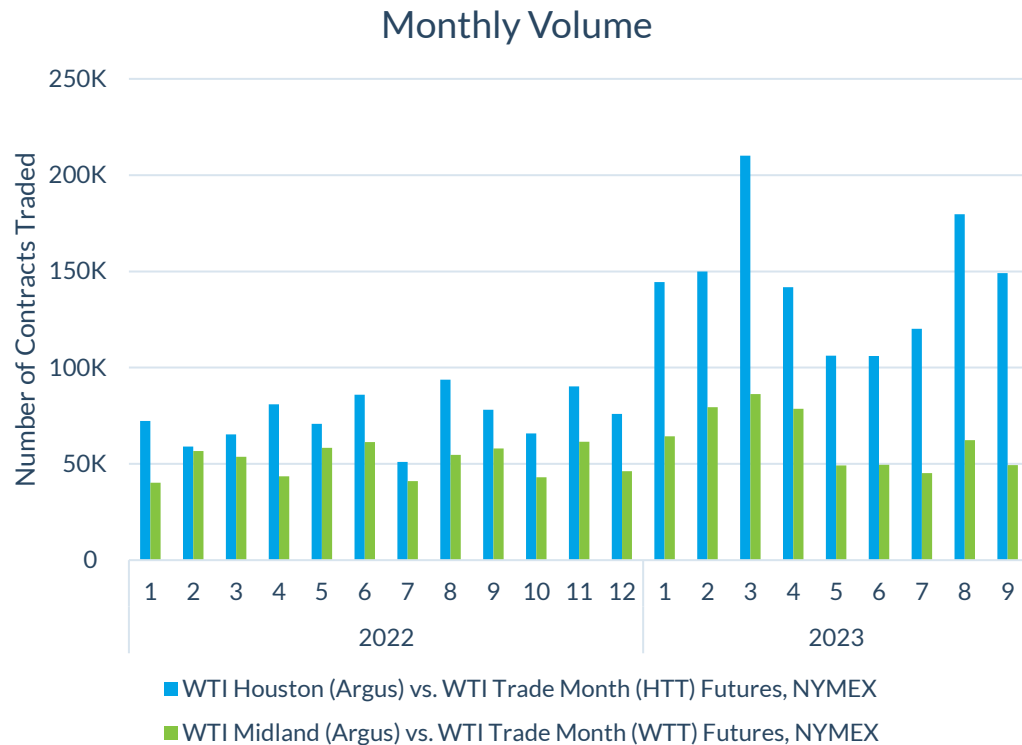
Rank	Contract and Exchange	Size	Jan-Jun 2023 Volume	Change vs. 2022	Jun 2023 Open Interest	Change vs. 2022
1	Henry Hub Natural Gas Futures, Moscow Exchange	100 MMBTU	225,125,869	1201.5%	554,358	1039.3%
2	Brent Crude Oil Futures, ICE Futures Europe	1,000 Barrels	199,905,829	11.0%	2,249,343	19.5%
3	Fuel Oil Futures, Shanghai Futures Exchange	10 Metric Tons	189,389,005	22.7%	429,749	-27.0%
4	WTI Light Sweet Crude Oil (CL) Futures, NYMEX	1,000 Barrels	155,545,807	-3.0%	1,774,359	18.5%
5	Crude Oil Options, Multi Commodity Exchange of India	100 Barrels	147,980,028	251.4%	76,228	104.5%
6	Bitumen Futures, Shanghai Futures Exchange	10 Metric Tons	87,548,873	-30.4%	471,789	-36.2%
7	Henry Hub Natural Gas (NG) Futures, NYMEX	10,000 MMBTU	74,237,947	13.9%	1,160,913	22.6%
8	Gas Oil Futures, ICE Futures Europe	100 Metric Tons	55,954,883	17.1%	711,094	45.3%
9	Natural Gas Options, Multi Commodity Exchange of India	1250 MMBTU	53,703,055	464.2%	58,884	476.1%
10	Brent Oil Futures, Moscow Exchange	10 Barrels	42,707,584	-46.5%	262,248	163.3%
11	Dutch TTF Gas Futures, ICE Endex	1 MW/Day	42,536,692	37.0%	1,376,779	41.1%
12	WTI Light Sweet Crude Oil Futures, ICE Futures Europe	1,000 Barrels	40,924,724	16.0%	689,628	60.7%
13	Low Sulfur Fuel Oil Futures, Shanghai International Energy Exchange	10 Metric Tons	37,809,512	29.2%	168,201	70.9%
14	Liquefied Petroleum Gas Futures, Dalian Commodity Exchange	20 Metric Tons	34,504,338	-3.0%	144,445	21.7%
15	Medium Sour Crude Oil Futures, Shanghai International Energy Ex.	1,000 Barrels	34,360,372	-20.9%	60,351	8.8%

Crude Oil Benchmarks: Trading Volume in the ICE Brent and Nymex WTI Futures over the Last 20 Years



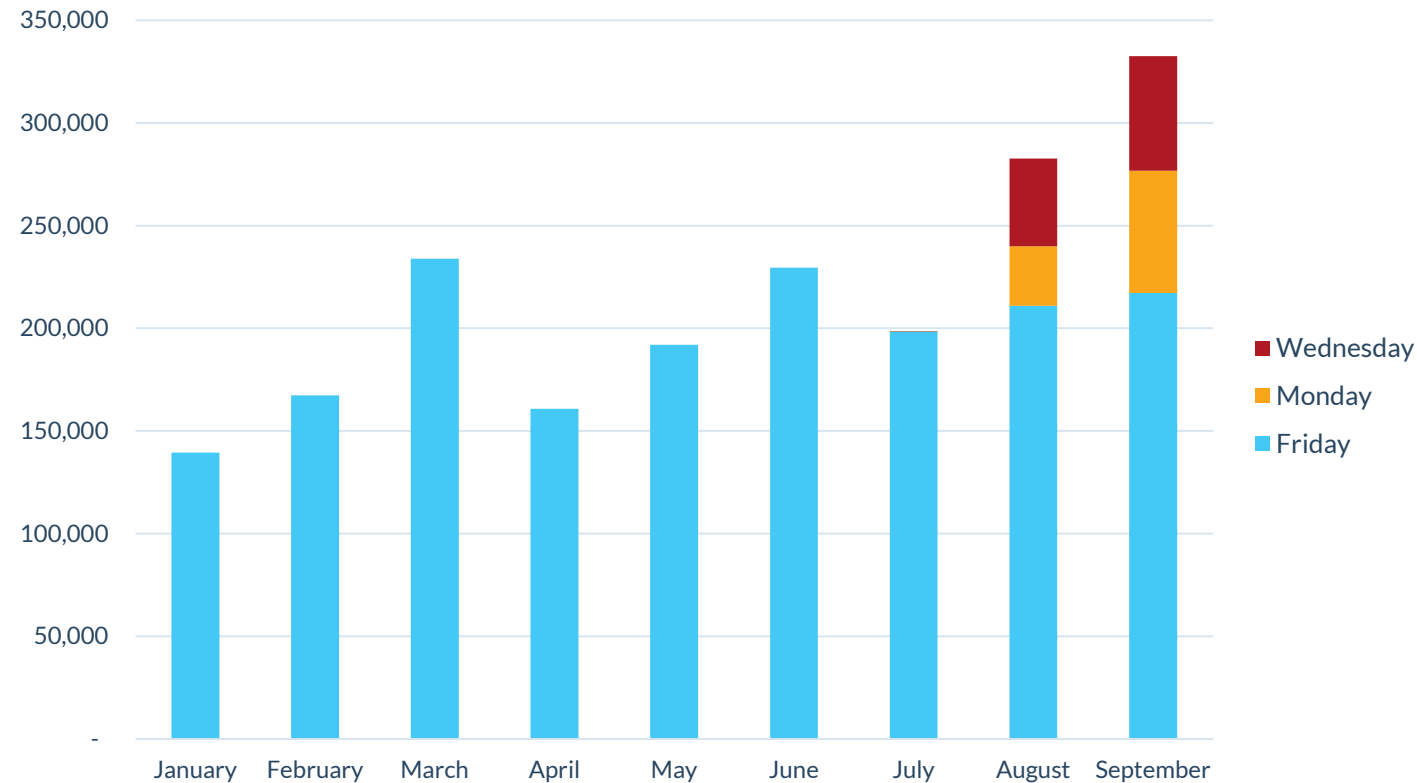
Gulf Coast Benchmarks: Hedging Exports of Midland Crude

Addition of Midland crude to the Brent deliverable basket in June 2023 prompted new interest in using futures based on the price of oil delivered to terminals in the Midland area and the Gulf Coast of Texas.



Crude Oil Options on CME: More Expirations Leads to Higher Trading Volume

WTI Crude Oil Weekly Options
Monthly Volume on CME

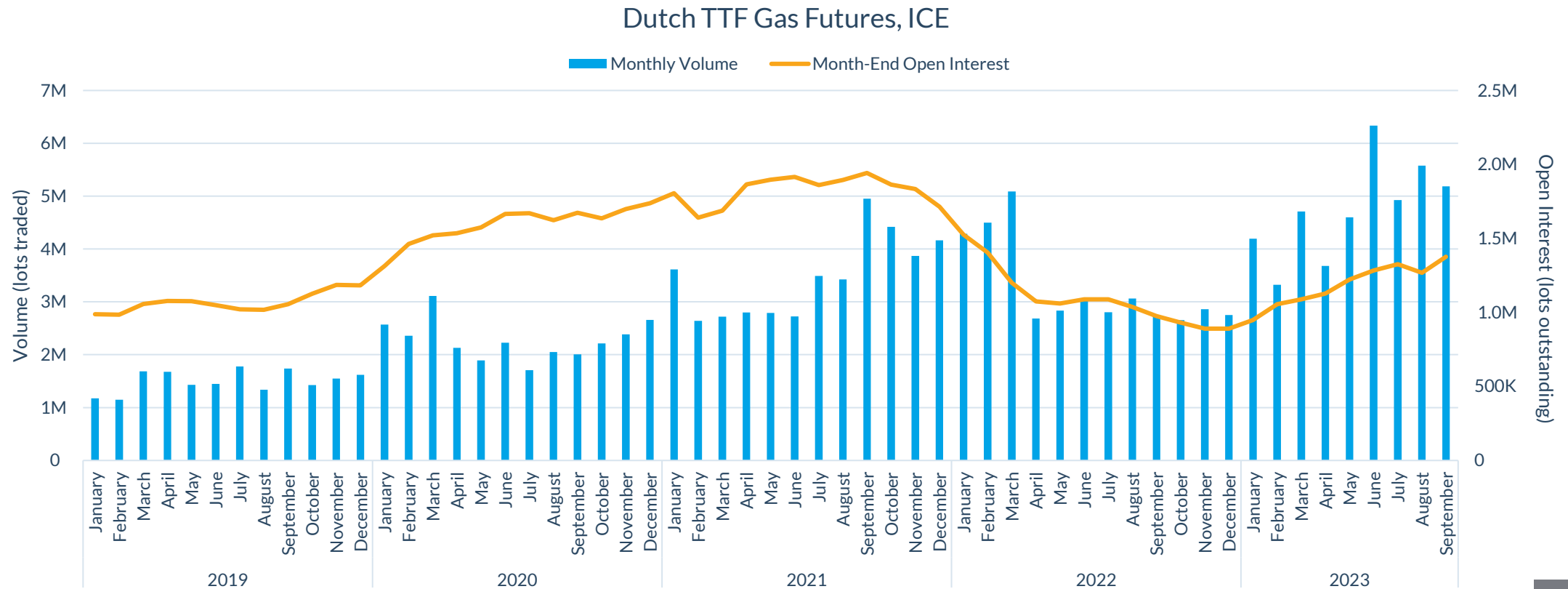


The addition of Monday and Wednesday expirations at the end of July has led to a notable increase in trading activity.

In September, 35% of the volume in the CME WTI crude oil options was in the Monday and Wednesday contracts.

EU Natural Gas: TTF Volume Trending Higher, Open Interest Still Recovering from Spike in Volatility

Q3 volume reaches a record high of 15.7 million contracts, open interest climbs above 1.3 million



Industrial Metals – Top Contracts by Volume – Part 1

Rank	Contract and Exchange	Size	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
1	Steel Rebar Futures, Shanghai Futures Exchange	10 Metric Tons	398,243,144	5.4%	2,852,054	17.1%
2	Iron Ore Futures, Dalian Commodity Exchange	100 Metric Tons	162,417,275	1.9%	1,197,376	9.8%
3	Hot Rolled Coil Futures, Shanghai Futures Exchange	10 Metric Tons	115,427,398	5.4%	1,401,027	31.2%
4	Iron Ore Options, Dalian Commodity Exchange	100 Metric Tons	70,705,485	156.7%	574,639	90.0%
5	Aluminum Futures, Shanghai Futures Exchange	25 Metric Tons	60,062,370	-25.4%	526,828	31.5%
6	Ferrosilicon (SF) Futures, Zhengzhou Commodity Exchange	5 Metric Tons	52,653,427	2.8%	474,014	22.2%
7	Silicon Manganese (SM) Futures, Zhengzhou Commodity Exchange	5 Metric Tons	44,506,923	40.2%	579,738	69.8%
8	Nickel Futures, Shanghai Futures Exchange	1 Metric Ton	44,439,307	6.3%	124,122	10.7%
9	Steel Rebar Options, Shanghai Futures Exchange ¹	10 Metric Tons	42,781,995	n/a	329,741	n/a
10	Zinc Futures, Shanghai Futures Exchange	5 Metric Tons	42,673,358	-18.4%	195,443	0.6%
11	High Grade Primary Aluminium Futures, London Metal Exchange	25 Metric Tons	41,854,881	6.0%	727,914	5.0%
12	Tin Futures, Shanghai Futures Exchange	1 Metric Ton	32,737,499	59.2%	56,822	-34.1%
13	Copper Futures, Shanghai Futures Exchange	5 Metric Tons	30,614,614	-13.2%	355,975	-15.5%
14	Stainless Steel Futures, Shanghai Futures Exchange	5 Metric Tons	29,230,611	12.1%	160,435	40.8%
15	Iron Ore 62% Futures, Singapore Exchange	100 Metric Tons	26,149,188	44.1%	1,146,275	34.5%

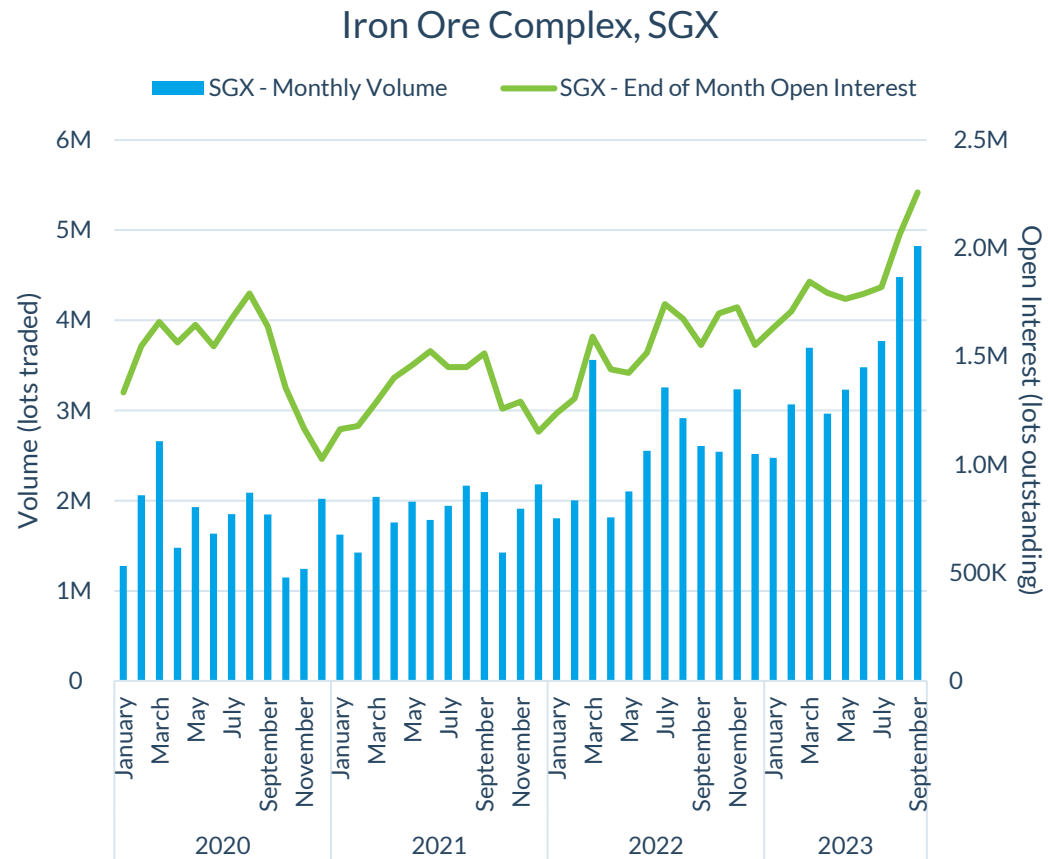
¹ Steel rebar options began trading in December 2022.

Industrial Metals – Top Contracts by Volume – Part 2

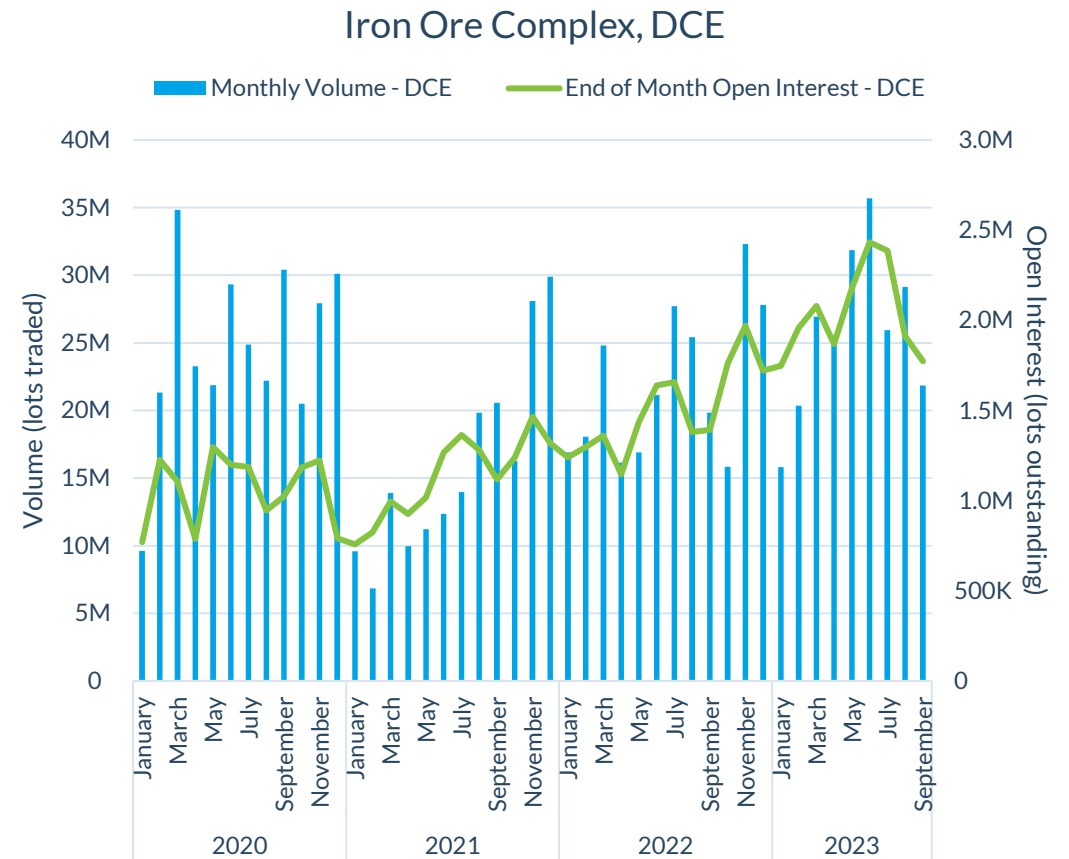
Rank	Contract and Exchange	Size	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
16	Copper Grade A Futures, London Metal Exchange	25 Metric Tons	24,767,541	13.7%	333,233	13.2%
17	Copper (HG) Futures, Commodity Exchange (COMEX)	25,000 Pounds	19,217,489	20.6%	208,646	23.6%
18	Aluminium Options, Shanghai Futures Exchange	25 Metric Tons	17,927,737	112.7%	87,250	128.7%
19	Special High Grade Zinc Futures, London Metal Exchange	25 Metric Tons	16,825,049	3.4%	276,795	21.8%
20	Zinc Options, Shanghai Futures Exchange	5 Metric Tons	16,127,504	179.0%	44,191	99.5%
21	Copper Options, Shanghai Futures Exchange	5 Metric Tons	15,610,013	80.9%	88,034	29.4%
22	Lead Futures, Shanghai Futures Exchange	5 Metric Tons	14,954,954	-2.6%	171,016	138.4%
23	Standard Lead Futures, London Metal Exchange	25 Metric Tons	10,529,385	40.8%	164,506	47.5%
24	Aluminum Oxide Futures, Shanghai Futures Exchange ²	20 Metric Tons	7,596,716	n/a	88,201	n/a
25	Primary Nickel Futures, London Metal Exchange	6 Metric Tons	7,145,106	-27.7%	184,571	14.1%
26	Iron Ore 62% Options on Futures, Singapore Exchange	100 Metric Tons	5,501,948	36.8%	1,071,571	60.2%
27	Bonded Copper Futures, Shanghai International Energy Exchange	5 Metric Tons	4,624,565	4.7%	30,977	74.7%
28	Copper Grade A Options, London Metal Exchange	25 Metric Tons	1,598,762	35.4%	134,823	38.4%
29	High Grade Primary Aluminium Options, London Metal Exchange	25 Metric Tons	1,491,049	-51.9%	142,003	-42.2%
30	Copper Futures, Multi Commodity Exchange of India	2,500 Kilograms	1,451,112	-33.4%	6,494	19.0%

Iron Ore: Tale of Two Markets

SGX activity boosted by increased fund participation

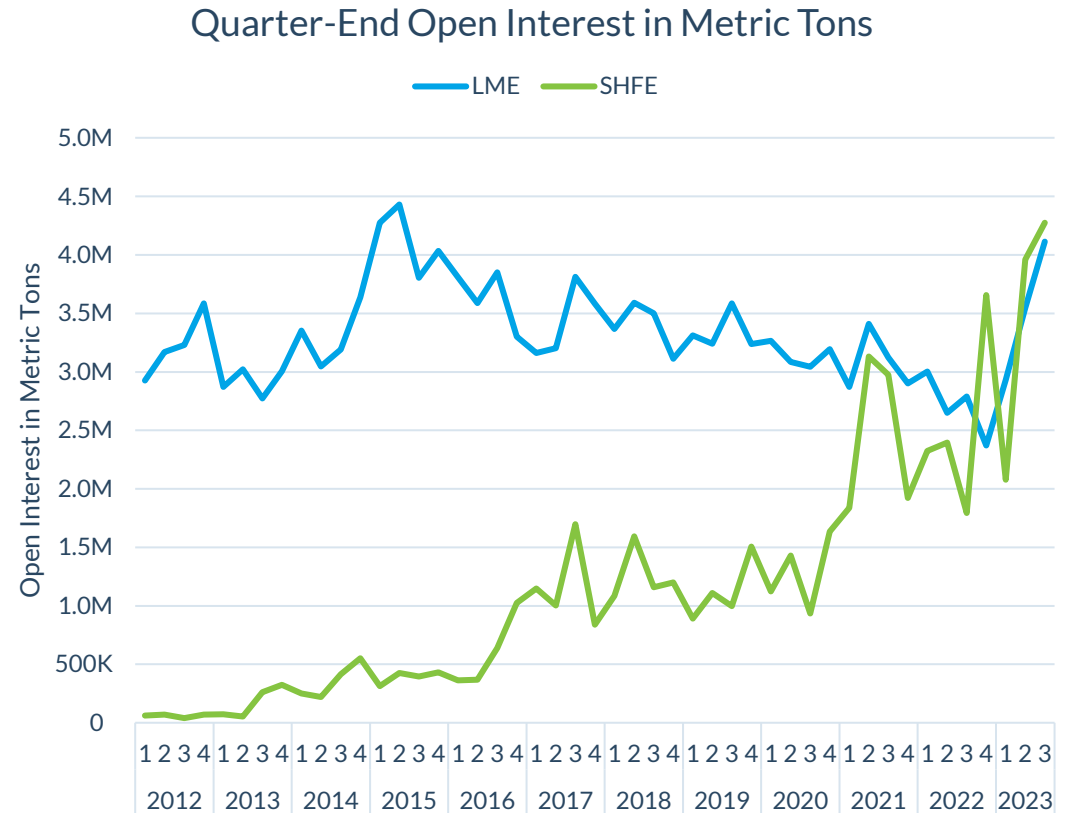
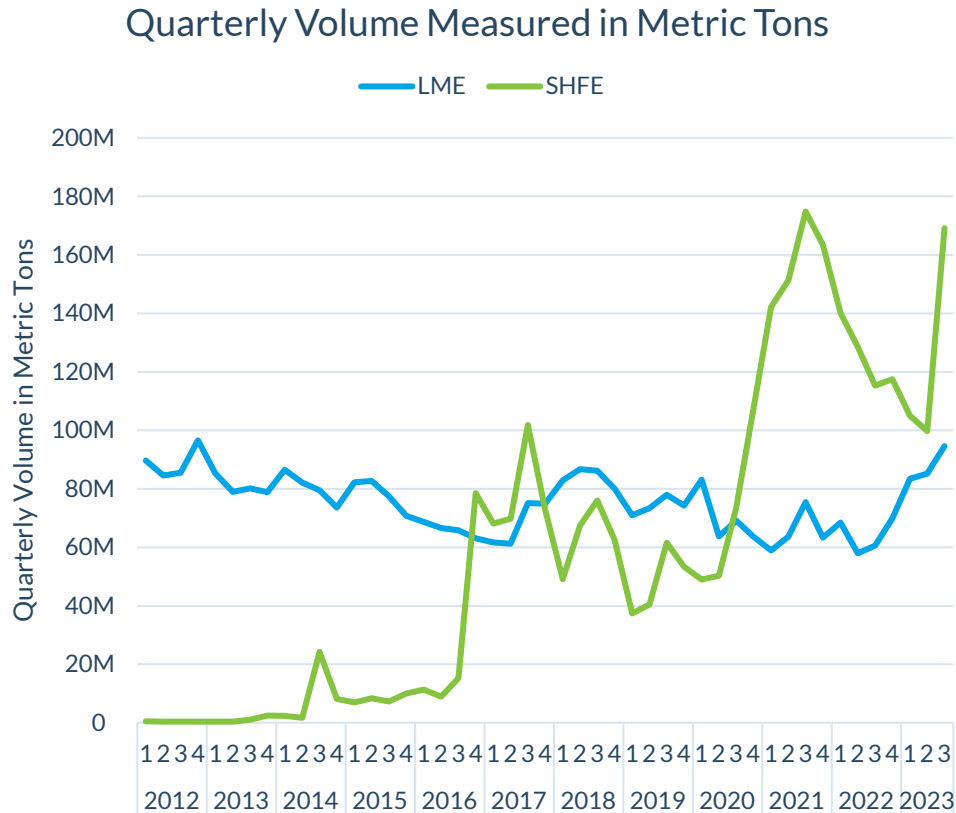


DCE estimates 3% of trading comes from abroad



Lead Futures: Surge in Trading Activity

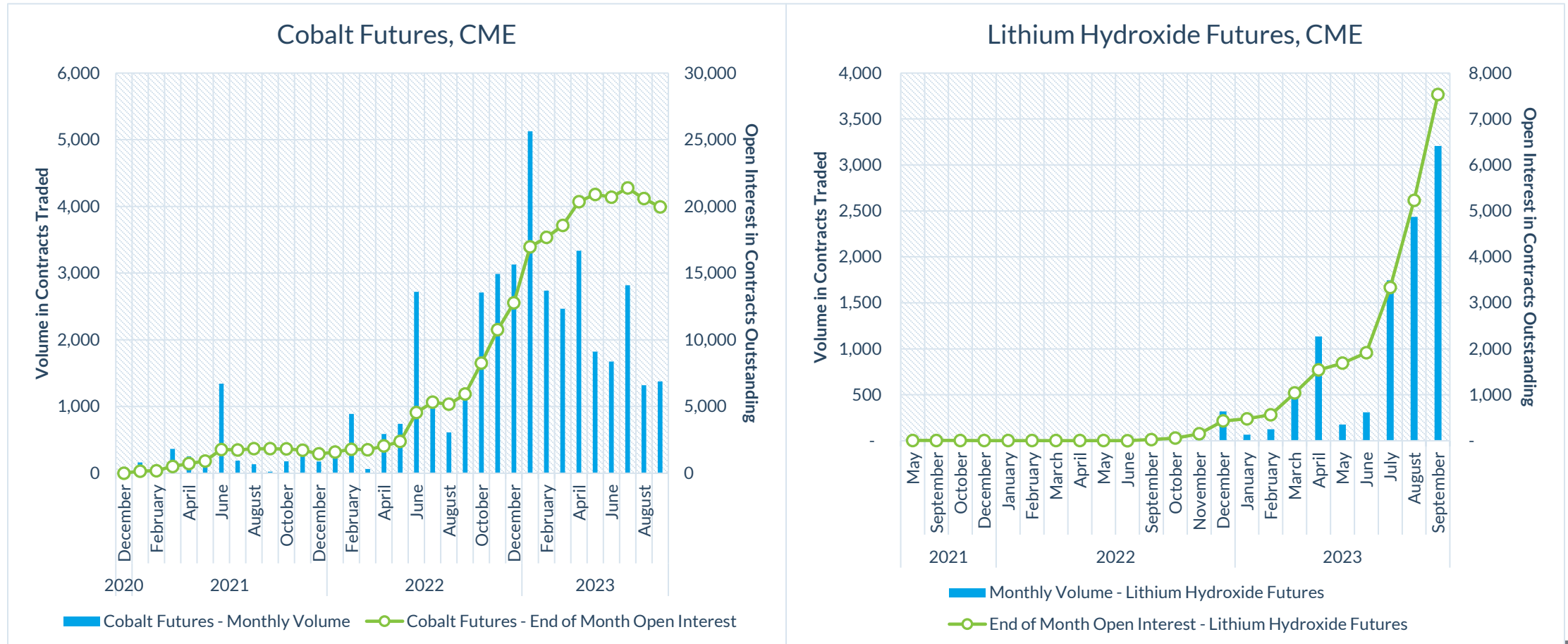
Volume and open interest boosted by supply chain shifts, short positions on SHFE, and addition to commodity index



Note: LME and SHFE data has been adjusted by multiplying volume and open interest by contract sizes - 25 tons for LME and 5 tons for SHFE

Battery Metals: Early Days

Demand for EV batteries sparks interest in risk management, but trading activity still very small



Top Contracts in Agriculture –China

Rank	Exchange	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
1	Soybean Meal Futures, Dalian Commodity Exchange	266,856,677	8.3%	3,161,857	50.6%
2	RBD Palm Olein Futures, Dalian Commodity Exchange	168,295,450	-6.0%	609,414	-14.8%
3	Rapeseed Meal (RM) Futures, Zhengzhou Commodity Exchange	168,087,528	67.3%	900,415	47.4%
4	Soybean Oil Futures, Dalian Commodity Exchange	157,298,975	12.6%	885,706	33.5%
5	White Sugar (SR) Futures, Zhengzhou Commodity Exchange	147,614,871	117.1%	932,405	39.6%
6	Rapeseed Oil (OI) Futures, Zhengzhou Commodity Exchange	141,848,882	123.7%	463,345	70.5%
7	Cotton No. 1 (CF) Futures, Zhengzhou Commodity Exchange	129,902,631	57.8%	861,163	-6.9%
8	Corn Futures, Dalian Commodity Exchange	125,384,299	22.5%	1,369,061	2.5%
9	Woodpulp Futures, Shanghai Futures Exchange	87,689,158	34.4%	447,143	32.1%
10	Natural Rubber Futures, Shanghai Futures Exchange	64,324,206	6.5%	247,041	9.5%
11	Soybean Meal Options, Dalian Commodity Exchange	44,318,222	6.0%	812,755	19.5%
12	Corn Starch Futures, Dalian Commodity Exchange	41,524,555	23.0%	264,178	-21.0%
13	RBD Palm Olein Options, Dalian Commodity Exchange	37,758,192	88.6%	138,294	27.1%
14	White Sugar (SR) Options, Zhengzhou Commodity Exchange	37,201,801	144.8%	434,140	98.3%
15	No. 1 Soybean Futures, Dalian Commodity Exchange	33,297,085	26.9%	177,072	-6.1%

Top Contracts in Agriculture – ex China

Rank	Contract and Exchange	Jan-Sep 2023 Volume	Change vs. 2022	Sep 2023 Open Interest	Change vs. 2022
1	Corn Futures, Chicago Board of Trade	64,689,256	5.1%	1,358,967	0.2%
2	Soybean Futures, Chicago Board of Trade	45,351,940	19.4%	793,392	16.9%
3	Sugar #11 Futures, ICE Futures U.S.	30,681,038	19.1%	884,395	27.3%
4	Soybean Oil Futures, Chicago Board of Trade	27,724,913	29.6%	424,346	5.2%
5	Soybean Meal Futures, Chicago Board of Trade	26,163,453	28.2%	468,649	27.7%
6	Corn Options, Chicago Board of Trade	25,612,638	1.8%	1,256,778	-23.9%
7	Chicago Soft Red Winter Wheat Futures, Chicago Board of Trade	23,302,636	15.1%	434,160	46.9%
8	Soybean Options, Chicago Board of Trade	13,928,141	-2.1%	699,718	28.1%
9	Live Cattle Futures, Chicago Mercantile Exchange	12,379,921	12.6%	318,161	15.4%
10	Milling Wheat Futures, Euronext Derivatives Market	12,312,072	11.6%	458,786	-0.7%
11	Crude Palm Oil (FCPO) Futures, Malaysia Derivatives Exchange	11,262,058	-8.0%	221,984	10.5%
12	Cocoa Futures, ICE Futures U.S.	10,809,824	9.2%	282,722	-10.3%
13	Lean Hog Futures, Chicago Mercantile Exchange	9,904,014	13.1%	194,090	-5.5%
14	KC Hard Red Winter Wheat Futures, Chicago Board of Trade	9,441,361	13.8%	213,428	39.5%
15	Coffee C Futures, ICE Futures U.S.	8,592,445	9.2%	207,912	11.9%

Exchange Ranking – Part One

Rank	Exchange	Jan-Sep 2023 Volume	YoY % Change	Sep 2023 Open Interest	YoY % Change
1	National Stock Exchange of India	58,045,091,841	119.6%	30,408,500	29.3%
	National Stock Exchange of India	58,040,169,532	119.5%	30,180,854	28.4%
	NSE International Exchange	4,922,309	n/a	227,646	n/a
2	B3	6,189,551,016	-0.2%	193,489,578	55.4%
3	CME Group	4,491,956,340	0.4%	108,399,911	1.1%
	Chicago Mercantile Exchange	2,383,036,168	-4.0%	61,204,058	-7.3%
	Chicago Board of Trade	1,604,151,165	7.0%	32,549,202	20.6%
	New York Mercantile Exchange	398,391,148	0.2%	12,647,710	2.7%
	Commodity Exchange (COMEX)	106,377,859	12.6%	1,998,941	5.2%
4	Zhengzhou Commodity Exchange	2,763,647,845	60.4%	14,611,281	23.6%
5	Cboe Global Markets	2,755,422,991	8.2%	371,806	8.3%
	Cboe Options Exchange ¹	1,502,196,384	23.4%	n/a	n/a
	Cboe EDGX Options Exchange ¹	454,120,546	7.9%	n/a	n/a
	Cboe BZX Options Exchange ¹	415,767,798	-27.6%	n/a	n/a
	Cboe C2 Options Exchange ¹	342,872,914	17.1%	n/a	n/a
	Cboe Futures Exchange	40,433,572	-5.1%	371,249	8.4%
	Cboe Europe Derivative Exchange	31,776	43.2%	557	4.7%
ErisX ²	1	-100.0%	0	n/a	

Exchange Ranking – Part Two

Rank	Exchange	Jan-Sep 2023 Volume	YoY % Change	Sep 2023 Open Interest	YoY % Change
6	Intercontinental Exchange	2,722,191,258	4.7%	80,551,943	5.7%
	NYSE Arca ¹	922,318,746	3.6%	n/a	n/a
	ICE Futures Europe	881,459,799	6.9%	39,369,875	3.0%
	NYSE Amex ¹	561,005,560	3.0%	n/a	n/a
	ICE Futures U.S.	295,794,262	-0.1%	37,731,692	7.5%
	ICE Endex	58,287,263	40.2%	3,406,697	20.1%
	ICE Futures Abu Dhabi	1,690,890	74.2%	41,832	6.6%
	ICE Futures Singapore	1,634,738	-25.3%	1,847	-66.7%
	Nasdaq	2,403,219,386	2.8%	5,246,362	-21.0%
7	Nasdaq PHLX ¹	851,044,358	4.0%	n/a	n/a
	Nasdaq Options Market ¹	482,925,892	-18.3%	n/a	n/a
	Nasdaq ISE ¹	442,086,812	9.8%	n/a	n/a
	Nasdaq BX Options ¹	269,834,567	41.0%	n/a	n/a
	Nasdaq GEMX ¹	178,267,990	8.4%	n/a	n/a
	Nasdaq MRX ¹	129,773,358	10.3%	n/a	n/a
	Nasdaq Exchanges Nordic Markets	49,117,787	-7.8%	5,171,913	-21.0%
	Nasdaq Commodities	168,622	-32.3%	74,449	-21.9%
8	Dalian Commodity Exchange	1,893,377,545	12.1%	14,604,259	25.6%

Exchange Ranking – Part Three

Rank	Exchange	Jan-Sep 2023 Volume	YoY % Change	Sep 2023 Open Interest	YoY % Change
9	BSE	1,713,835,173	40.0%	1,667,090	28.5%
	BSE	1,666,995,884	52.6%	1,666,257	28.6%
	India International Exchange	46,839,289	-64.3%	833	-6.0%
10	Shanghai Futures Exchange	1,665,606,576	15.8%	10,193,417	23.2%
	Shanghai Futures Exchange	1,558,607,360	15.7%	9,702,952	21.4%
	Shanghai International Energy Exchange	106,999,216	17.4%	490,465	74.7%
11	Borsa Istanbul	1,559,293,418	-23.8%	19,557,000	-9.5%
12	Korea Exchange	1,521,607,745	-0.6%	10,642,784	-3.8%
13	Eurex	1,420,615,579	-6.3%	137,924,246	-8.3%
14	Miami International Holdings	1,211,784,172	25.7%	75,234	16.7%
	MIAX Options ¹	499,215,133	56.5%	n/a	n/a
	MIAX Pearl ¹	483,940,376	19.9%	n/a	n/a
	MIAX Emerald ¹	226,437,140	-5.1%	n/a	n/a
	Minneapolis Grain Exchange	2,191,523	-19.2%	75,234	16.7%
15	Moscow Exchange	922,877,690	-10.1%	32,190,926	101.0%
16	TMX Group	619,197,071	11.1%	15,938,768	16.0%
	Boston Options Exchange ¹	492,317,143	10.7%	n/a	n/a
	Montreal Exchange	126,879,928	12.5%	15,938,768	16.0%

Exchange Ranking – Part Four

Rank	Exchange	Jan-Sep 2023 Volume	YoY % Change	Sep 2023 Open Interest	YoY % Change
17	Hong Kong Exchanges and Clearing	356,720,845	7.9%	15,057,492	15.5%
	Hong Kong Exchanges and Clearing	249,412,791	9.1%	12,933,638	17.1%
	London Metal Exchange	107,308,054	5.1%	2,123,854	6.5%
18	Multi Commodity Exchange of India	308,517,282	108.2%	673,934	69.7%
19	Japan Exchange Group	286,790,372	-6.0%	4,112,242	6.6%
	Osaka Exchange	285,363,522	-5.9%	4,055,226	6.9%
	Tokyo Commodity Exchange	1,426,850	-28.0%	57,016	-8.7%
20	MATba ROFEX	265,163,689	26.5%	2,507,830	-32.0%
21	Taiwan Futures Exchange	241,203,463	-15.1%	967,084	-12.5%
22	Singapore Exchange	183,414,551	-5.8%	5,073,335	-4.1%
23	JSE Securities Exchange	183,114,691	31.6%	11,150,015	-42.4%
24	ASX	166,691,844	8.3%	9,905,765	8.6%
	ASX 24	112,691,623	9.0%	3,590,238	7.2%
	ASX	54,000,221	6.9%	6,315,527	9.5%
25	China Financial Futures Exchange	122,501,204	14.0%	1,746,309	31.9%
26	Euronext	120,140,072	-13.4%	23,973,565	-13.2%
	Euronext Derivatives Market	100,589,463	-14.6%	18,090,587	-17.4%
	Borsa Italiana (IDEM)	19,550,609	-7.1%	5,882,978	2.5%

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Upcoming Webinars:



Key Differences between EU and US Digital Asset Regulation
10:00 – 11:00 AM ET



Supervise This!
10:00 – 11:00 AM ET

FIA

The image features the letters 'FIA' in a bold, sans-serif font. The 'F' is dark grey. The 'I' is dark grey with a green triangle on its right side. The 'A' is blue with a green triangle on its left side. The background consists of large, overlapping geometric shapes in light green, light blue, and white.