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Monthly Market Recap

December 2023

BLOOMBERG < C F B X > GO

Market
Performance

Monthly Index Peformance

Multi-token indexes

Legend:
- CF Floating Broad Cap Index
- CF Diversified Large Cap Index
- CF DeFi Index
- CF Digital Culture Index
- CF Ultra Cap 5 Index
- CF Smart Contract Platforms Index
- CF Blockchain Infrastructure Index

All index performance is rebased to 100. Source: CF Benchmarks, Bloomberg, as of December 31, 2023

Smart Contracts Lead Crypto's Strong Finish
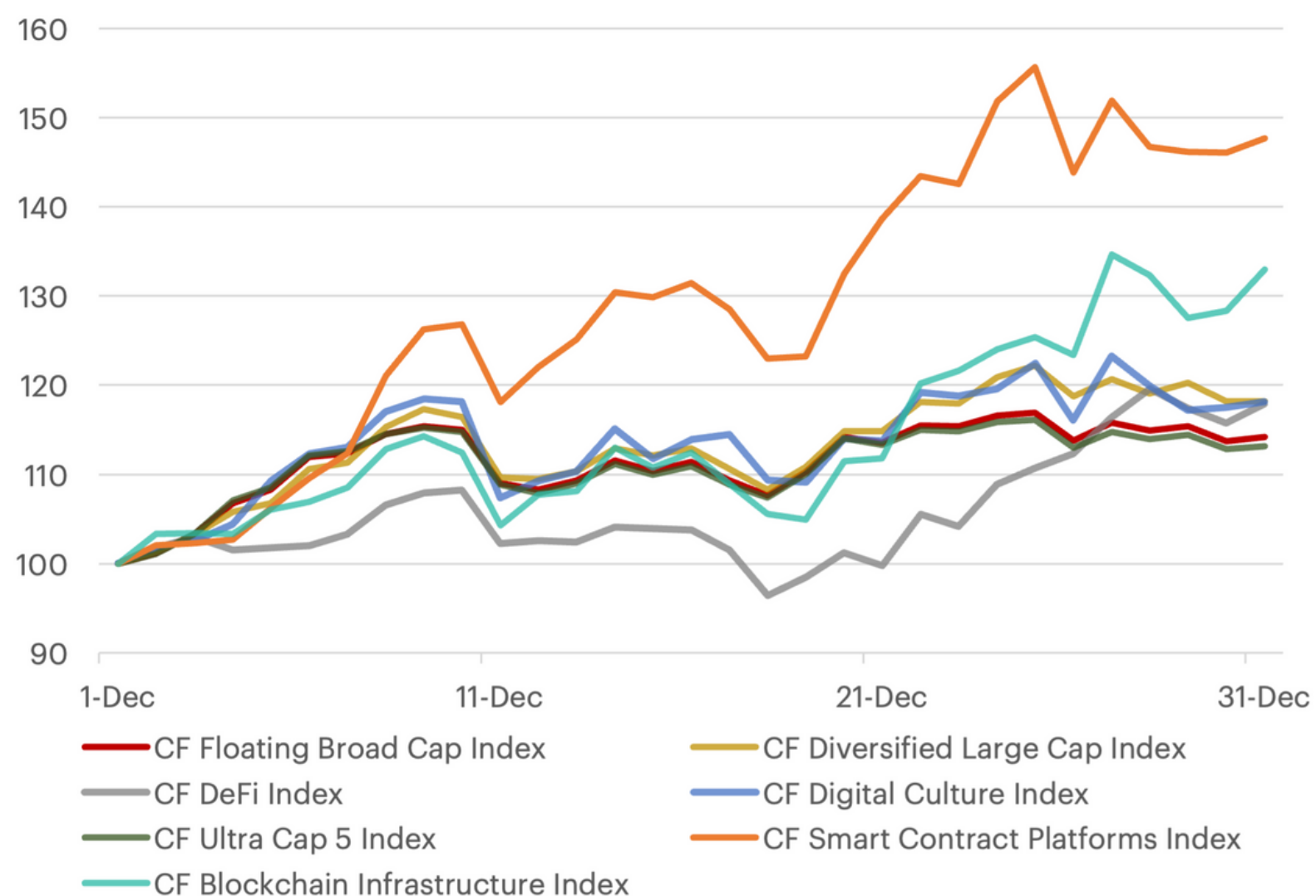
- Crypto market bulls came out on top in 2023, as evidenced by our key benchmark for institutional crypto markets, the CF Floating Broad Cap Index, rising approximately 140% year-to-date. This upward price movement was evident across our flagship portfolio indices even in the final calendar month of the year, with all flagship indices finishing positive. Hopes for a potential spot bitcoin ETF have helped lift Bitcoin prices above the $44,000 threshold for the first time since April 2022. Market participants eagerly await the outcome of the Securities and Exchange Commission's final approval deadlines set for early January 2024. In the meantime, Ether prices also reached new short-term highs in December, with prices breaking through the $2,400 level.

- The CF Web 3.0 Smart Contract Platforms Index rallied over 47%, leading the rest of its peers and outpacing the runner-up (the CF Blockchain Infrastructure Index) by approximately 15 percentage points.

- The CF Ultra Cap 5 Index and CF Floating Broad Cap Index continued to underperform, despite posting double-digit percentage gains.

Major Crypto-Pairs (USD)

Name	DACS Level 1	DACS Level 2	DACS Level 3	1 Day	1 Week	1 Month	3 Month	YTD	30 D Volatiltity
Internet Computer	Settlement	Programmable	General Purpose Smart Contract Platforms	8.5%	35.7%	191.4%	318.1%	233.6%	146.98
Stacks	Services	Infrastructure	Computing	5.8%	8.0%	116.8%	211.2%	615.0%	167.30
Avalanche	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.1%	-19.2%	80.1%	317.0%	253.0%	88.67
Algorand	Settlement	Programmable	General Purpose Smart Contract Platforms	2.5%	-0.4%	71.7%	122.9%	34.1%	79.08
Solana	Settlement	Programmable	General Purpose Smart Contract Platforms	-0.2%	-9.7%	71.7%	375.7%	916.1%	93.29
Cardano	Settlement	Programmable	General Purpose Smart Contract Platforms	-0.1%	-1.0%	60.0%	136.8%	142.6%	86.85
Filecoin	Services	Utility	Information & Data Management	15.2%	22.7%	58.0%	106.2%	128.6%	85.80
Fantom	Settlement	Programmable	General Purpose Smart Contract Platforms	1.8%	-9.4%	56.7%	137.9%	138.0%	89.93
Polkadot	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.0%	-4.8%	51.1%	102.1%	92.1%	84.48
Hedera	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.0%	-4.8%	42.6%	72.7%	137.6%	54.67
Polygon	Services	Infrastructure	Scaling	2.8%	14.5%	29.4%	84.7%	-5.8%	66.01
EOS	Settlement	Programmable	General Purpose Smart Contract Platforms	0.8%	4.5%	26.8%	48.2%	-0.4%	58.04
Uniswap	Sectors	Finance	Trading	-0.7%	5.6%	25.3%	65.8%	43.7%	68.42
Chiliz	Sectors	Culture	Social	N/A	4.7%	23.3%	52.5%	-8.2%	57.30
Cosmos	Settlement	Programmable	General Purpose Smart Contract Platforms	N/A	0.4%	21.2%	58.1%	19.9%	73.54
Decentraland	Sectors	Culture	Vr And Ar	1.0%	-2.0%	20.6%	68.3%	75.4%	56.56
Tezos	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.9%	2.0%	20.5%	47.1%	38.9%	63.79
Synthetix	Sectors	Finance	Derivatives	N/A	6.5%	20.0%	26.9%	29.4%	62.81
Ethereum Classic	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.1%	5.1%	18.8%	33.9%	37.7%	51.44
Bitcoin Cash	Settlement	Non-Programmable	Store Of Value And Payment	-4.2%	13.5%	18.2%	10.6%	169.0%	63.14
Bitcoin	Settlement	Non-Programmable	Store Of Value And Payment	0.5%	-2.3%	12.6%	57.0%	157.0%	37.69
Ether	Settlement	Programmable	General Purpose Smart Contract Platforms	-0.8%	0.1%	11.5%	35.8%	90.3%	40.64
Curve DAO Token	Sectors	Finance	Trading	-0.5%	-0.4%	11.5%	18.5%	18.3%	75.93
Maker	Sectors	Finance	Stablecoin Issuance & Management	6.2%	21.5%	11.2%	10.7%	232.9%	45.11
Aave	Sectors	Finance	Borrowing & Lending	-2.2%	8.9%	10.5%	60.6%	107.3%	63.75
Stellar	Settlement	Non-Programmable	Store Of Value And Payment	-2.6%	2.3%	9.0%	14.9%	80.9%	41.83
Dogecoin	Settlement	Non-Programmable	Store Of Value And Payment	-0.7%	-3.2%	7.9%	43.9%	27.6%	52.85
Litecoin	Settlement	Non-Programmable	Store Of Value And Payment	0.6%	2.7%	6.3%	11.1%	5.1%	34.96
Chainlink	Services	Utility	Oracles	-0.3%	-2.6%	5.6%	85.9%	172.8%	62.86
Apecoin	Sectors	Culture	Social	-0.1%	-4.2%	4.1%	30.9%	-54.8%	67.93
Ripple	Settlement	Non-Programmable	Store of Value and Payment	-0.8%	0.1%	2.0%	19.6%	81.0%	34.36

- General purpose smart contract platforms accounted for most of the outsized gains, with Internet Computer (ICP), Avalanche (AVAX) and Algorand (ALGO) finishing the month as major leaders.

- Stacks (STX), a computing protocol, was this month's runner up as the only non-smart contract platform to finish in the top six, rising over 116%.

Source: CF Benchmarks, Bloomberg, as of December 31, 2023

Trailing Risk-Adjusted Returns
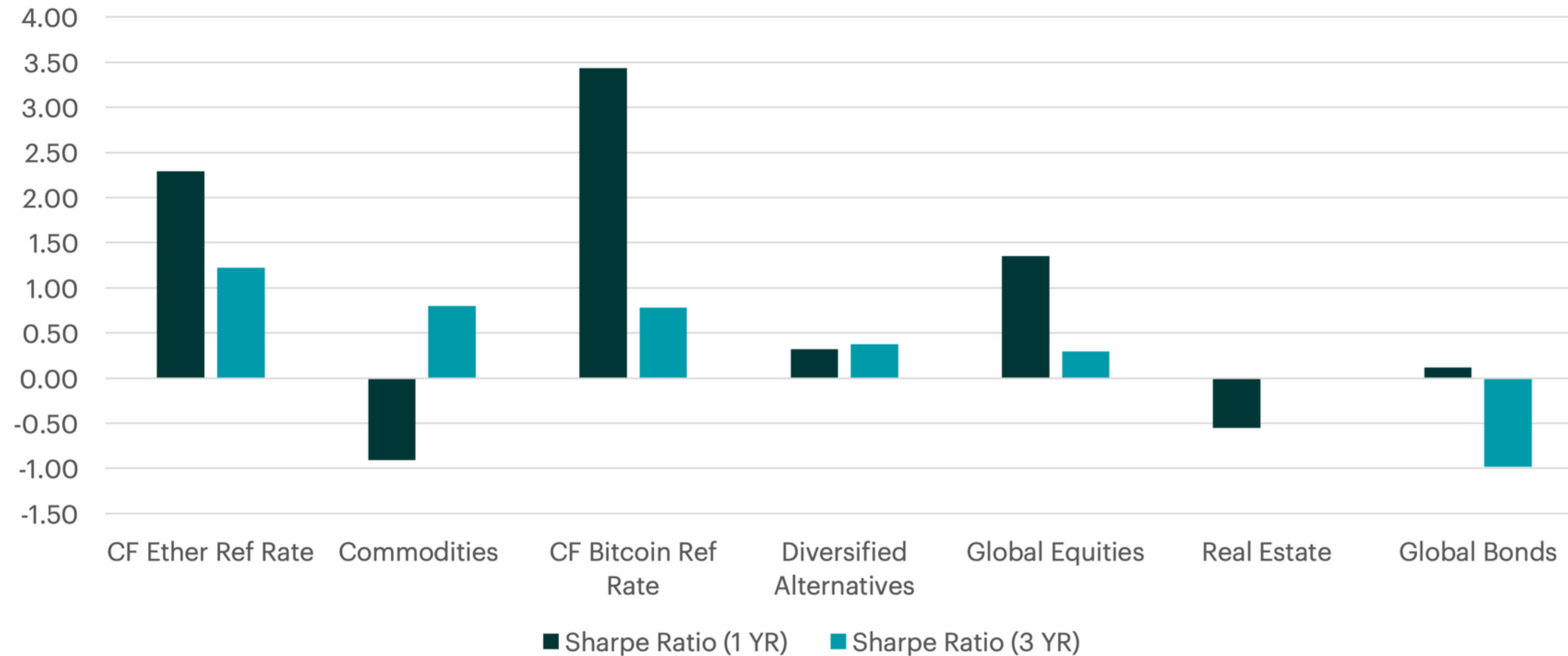
- When compared to traditional asset classes, Ether and Bitcoin have delivered above-average risk-adjusted performance over both shorter and longer time horizons.
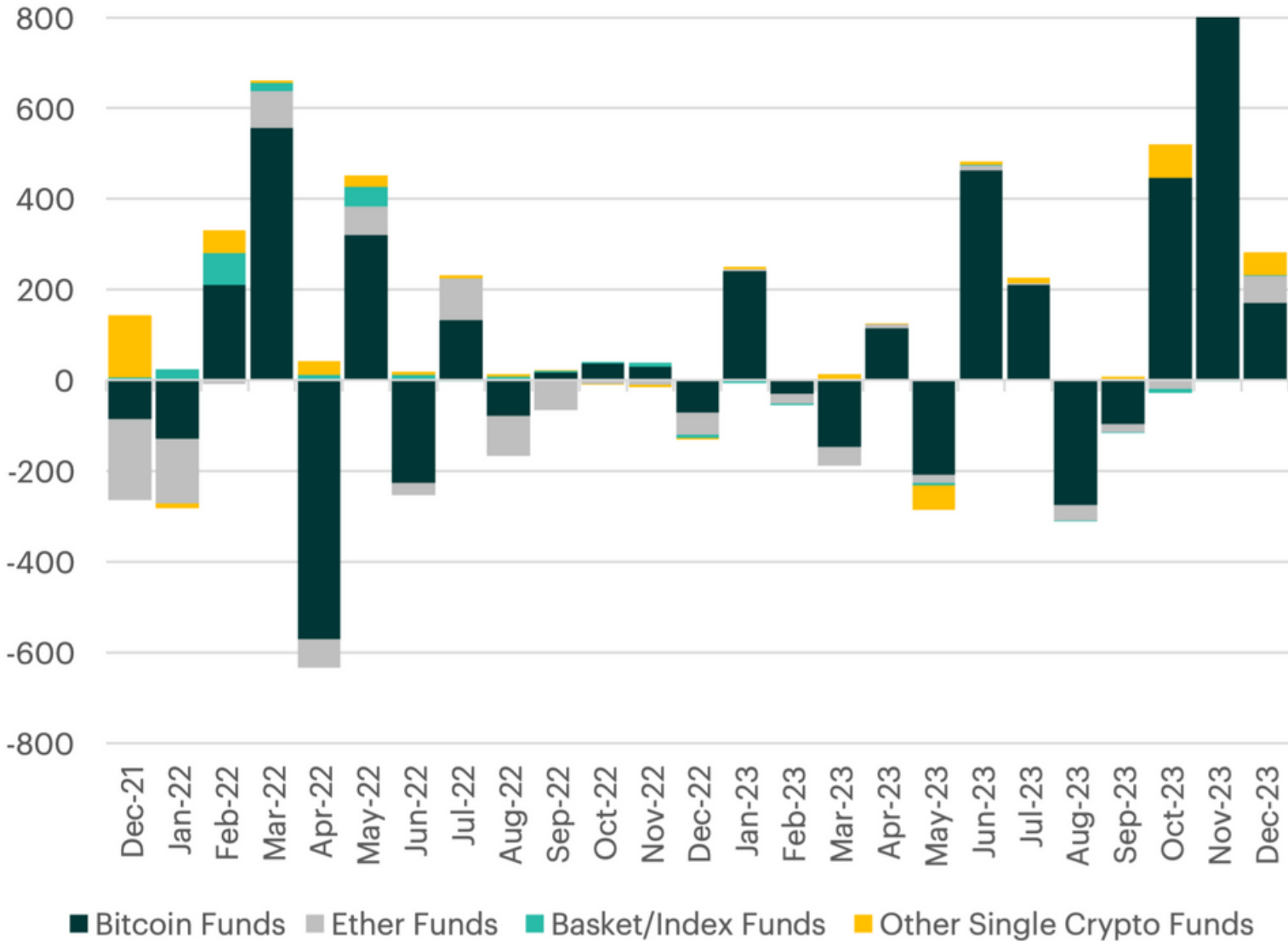
Source: CF Benchmarks, Bloomberg, total return indices are referenced in USD, as of December 31, 2023

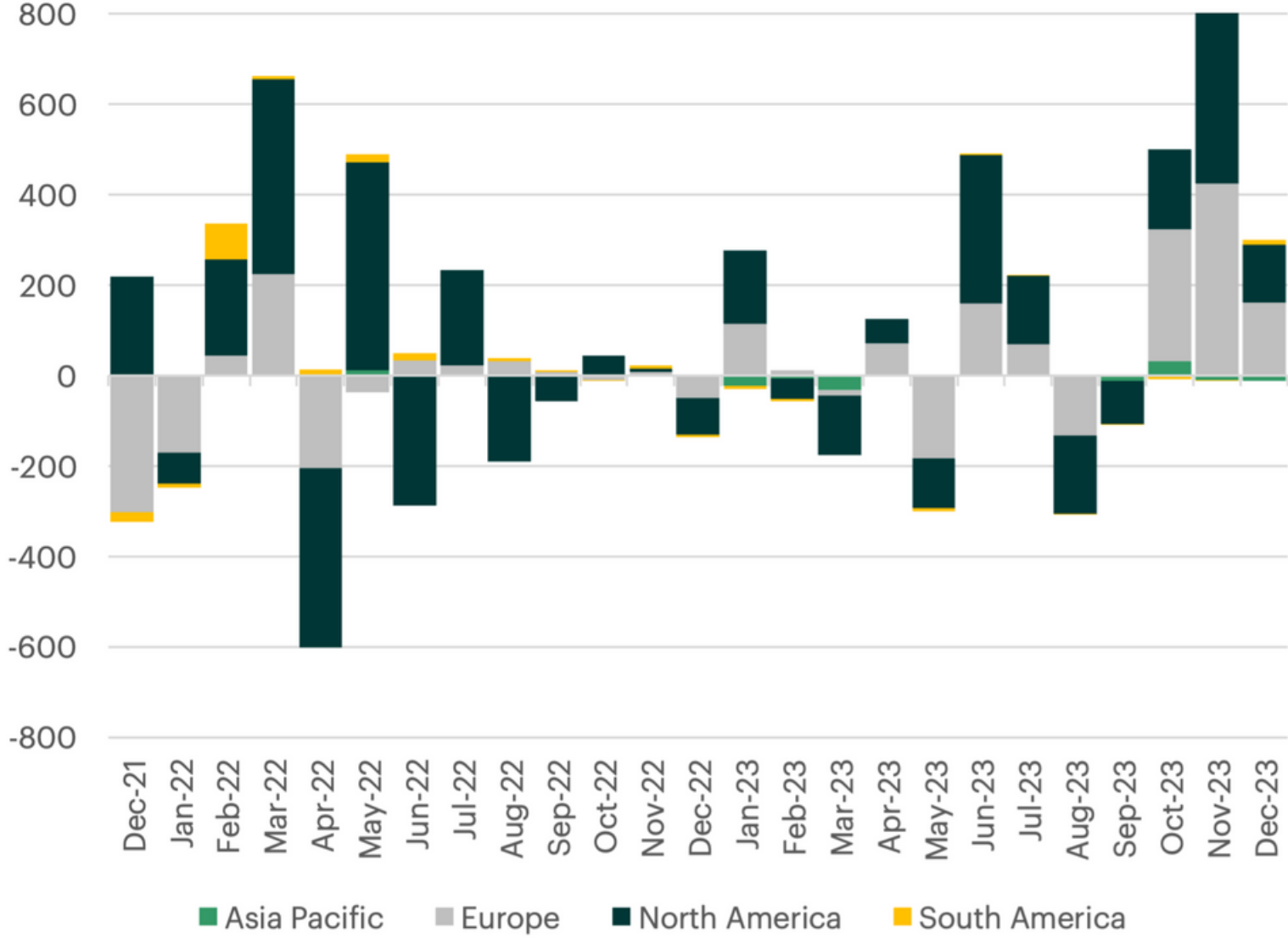Investor Activity & Sentiment Positioning

Currency of Flows


Fund Flows by Asset ($m)

Legend: Bitcoin Funds, Ether Funds, Basket/Index Funds, Other Single Crypto Funds

Regional Fund Flows ($m)

Legend: Asia Pacific, Europe, North America, South America

- Total monthly fund flows climbed further in December, with total digital asset fund inflows totaling over $280M. Meanwhile, Ether related funds witnessed their largest level of fund inflows since July 2022 (+$60M).

- From a regional perspective, the majority of fund inflows were concentrated in Europe (+$161M) and North America (+$128M).

Source: CF Benchmarks, Bloomberg, as of December 31, 2023

Futures Positioning and Open Interest
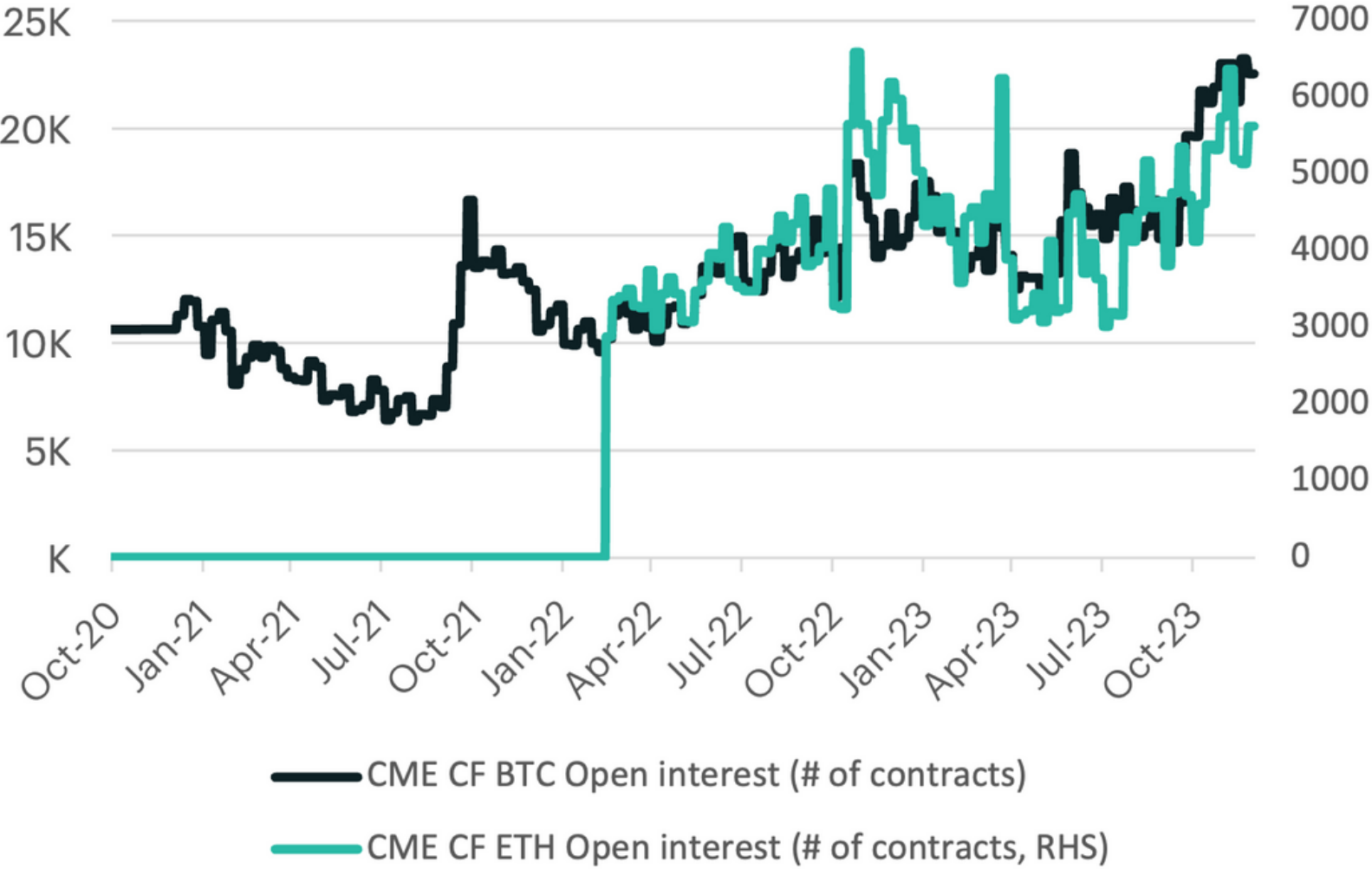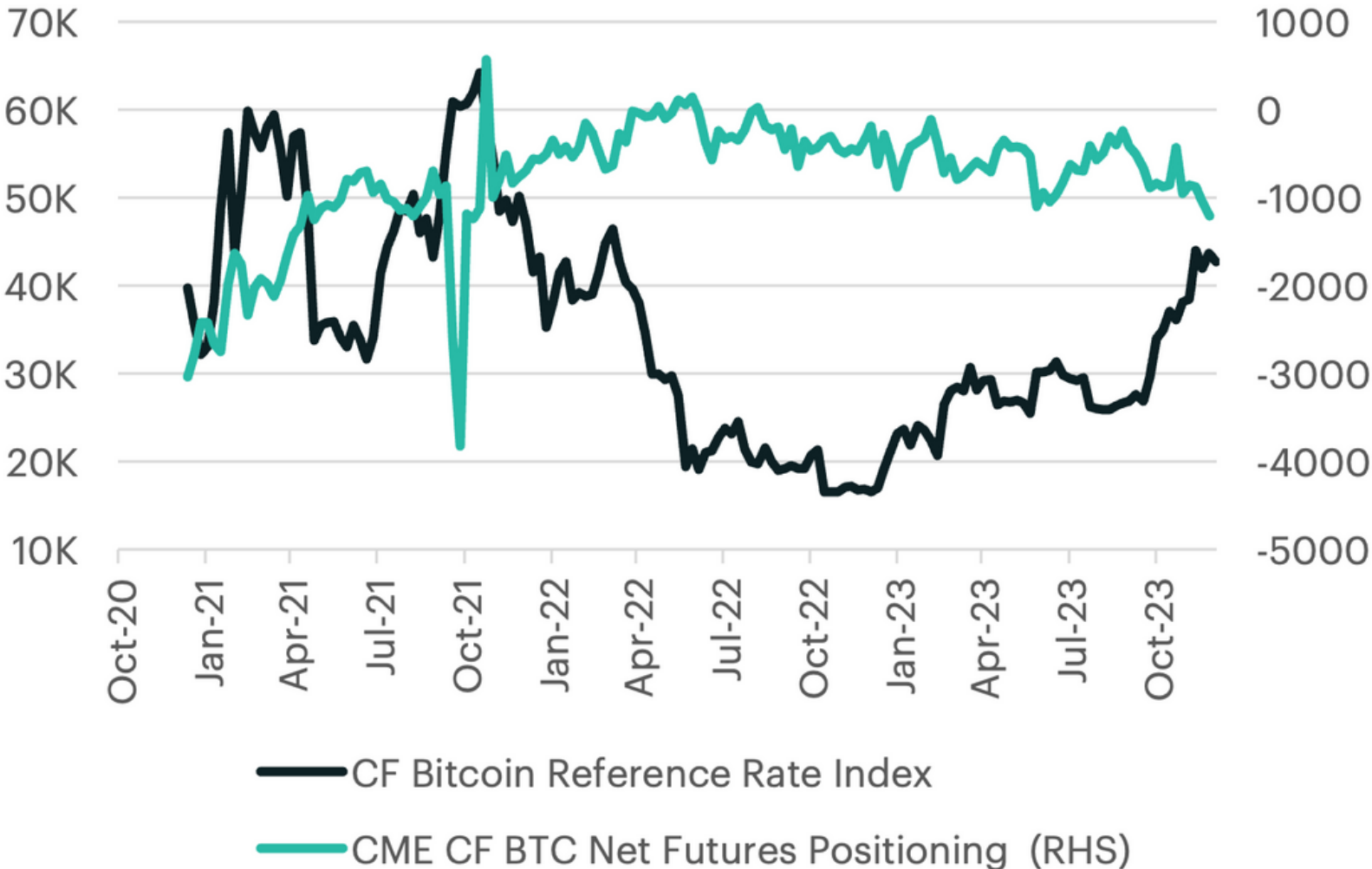
- Net sentiment positioning in Bitcoin futures fell in December, with short positions outpacing longs, resulting in net futures positioning on the CME falling to -1,210 from -953 contracts.

Source: CF Benchmarks, CFTC, Bloomberg, as of December 26, 2023

- Total open interest for both Bitcoin and Ether futures continued to climb, rising over 2% for the month. CME Bitcoin open interest set a new all-time high level of 23,239 contracts.

CF Bitcoin Interest Rate Curve

Term Structure (Annualized Rates)

— Now — One month ago

■ Nominal Change (%)
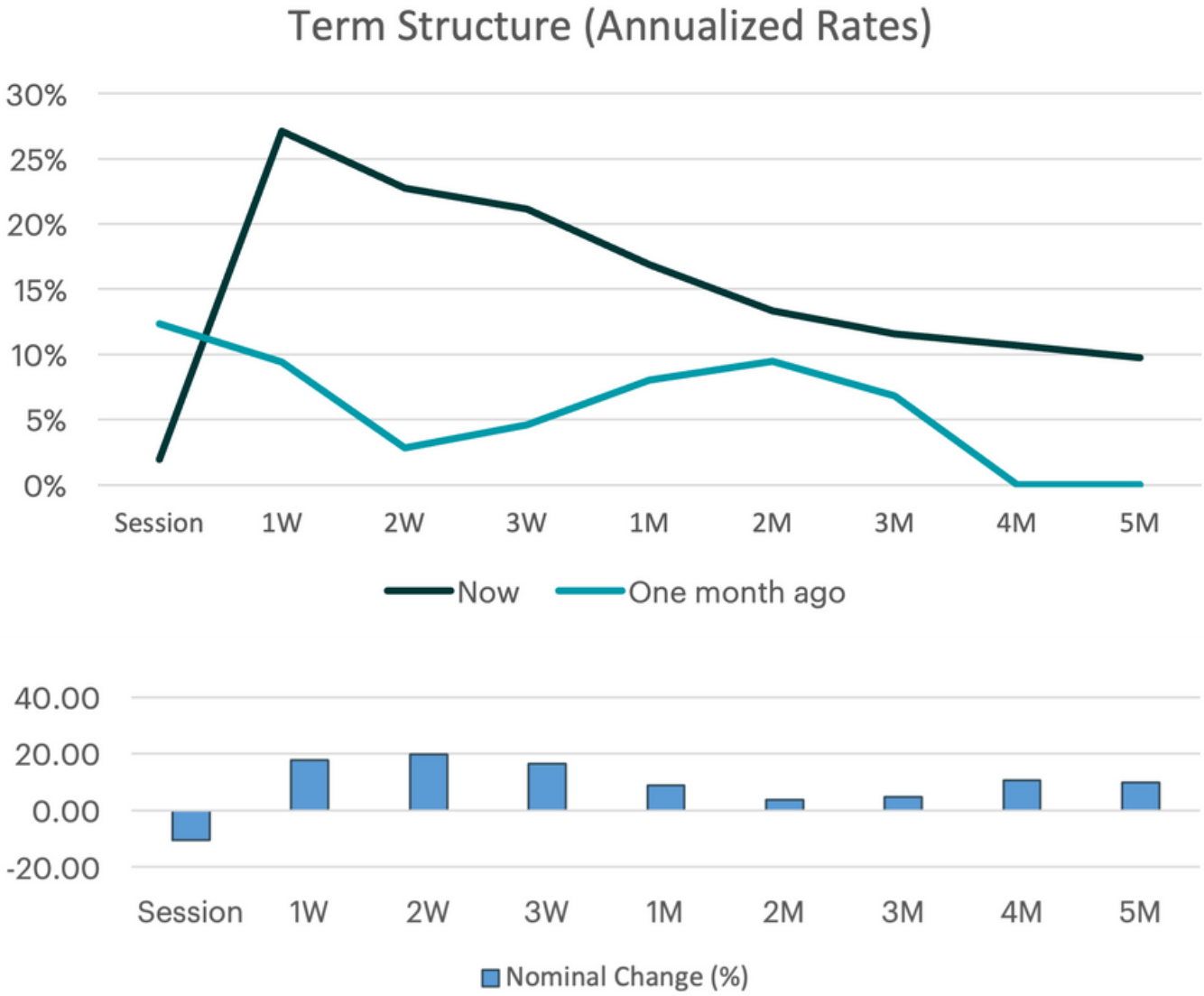
Term structure broadly flatten

- The Bitcoin Interest Rate Curve (or BIRC) represents the profit of a static cash and carry strategy (sell the futures and buy the spot or vice-versa) from the perspective of an economic agent who owns Bitcoins and is trying to generate yield.

- Changes, or shifts, of the CF BIRC have historically been indicative of bullish or bearish sentiment.

- Positive investor sentiment, stemming from the anticipation of a spot Bitcoin ETF, has continued to impact the BIRC (Bitcoin Interest Rate Curve). Most of the increases have occurred at the front-end (1 week to 1 month) and tail end (4-5 month) ranges of the curve.

Source: CF Benchmarks, as of December 31, 2023

On-chain Updates

Total Value Locked (TVL) in DeFi Protocols
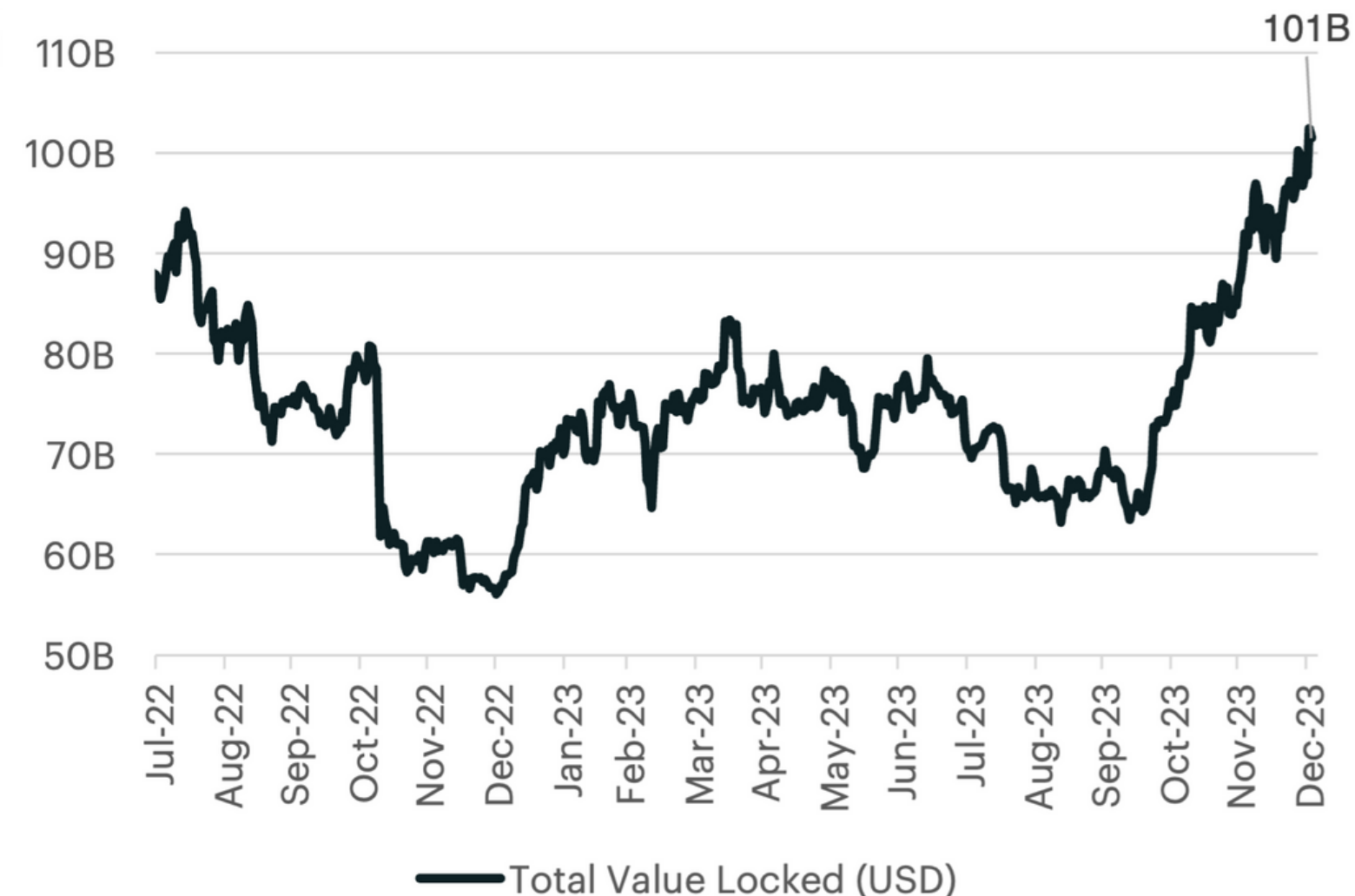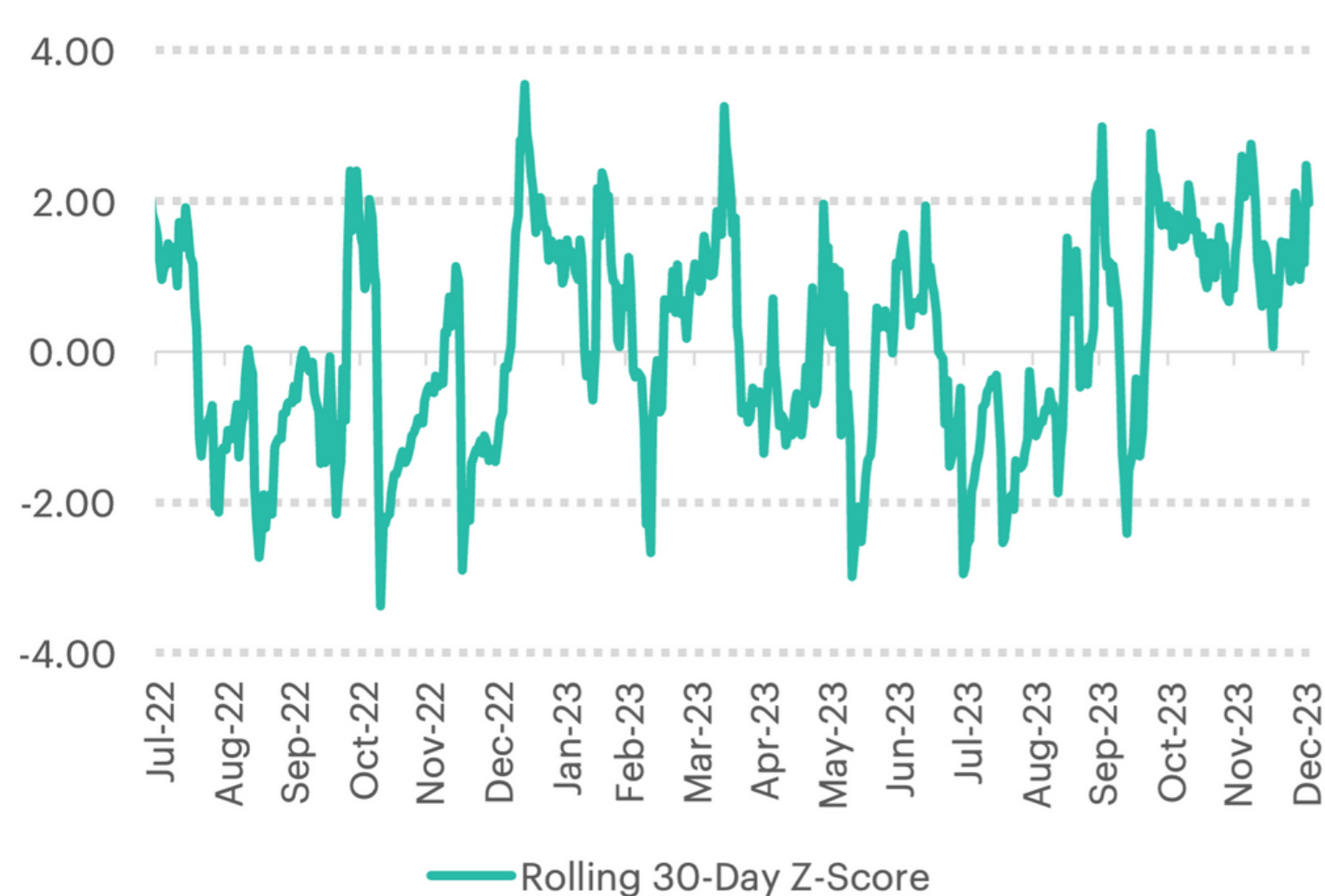
- Total value locked (TVL) in decentralized finance (DeFi) protocols continued on its upward trajectory, rising from $86 billion to over $101 billion, representing over a two-sigma move to the upside in December.

Source: CF Benchmarks, DeFiLlama, Kraken Intelligence, as of December 31, 2023

Blockchains by NFT Sales Volume

Rank	Blockchain	Sales (USD)	Total (USD)	Transactions (#)	Buyers	Sellers
1	Bitcoin	$871,731,452	$871,877,788	472,622	14,470	14,619
	30-Day % Change	*105.25%*	*101.61%*	*39.12%*	*124.48%*	*118.98%*
2	Ethereum	$341,567,079	$707,175,485	934,397	58,742	47,744
	30-Day % Change	*20.87%*	*17.64%*	*42.26%*	*16.52%*	*13.29%*
3	Solana	$329,174,540	$339,354,191	4,924,622	18,967	22,491
	30-Day % Change	*232.22%*	*231.85%*	*253.65%*	*104.94%*	*114.12%*
4	Polygon	$55,248,100	$87,315,737	1,699,129	15,547	8,053
	30-Day % Change	*23.76%*	*4.13%*	*50.05%*	*26.47%*	*16.64%*
5	Arbitrum	$29,381,919	$29,428,302	151,988	3,643	3,220
	30-Day % Change	*188.11%*	*185.50%*	*46.19%*	*56.69%*	*172.19%*
6	ImmutableX	$22,824,865	$22,824,865	425,523	16,457	16,800
	30-Day % Change	*1.32%*	*1.32%*	*9.02%*	*1.34%*	*4.54%*
7	Mythos	$20,888,097	$21,161,945	1,133,708	12,845	11,067
	30-Day % Change	*15.35%*	*15.08%*	*11.45%*	*18.63%*	*16.32%*
8	Avalanche	$16,737,758	$18,483,333	211,827	2,257	1,595
	30-Day % Change	*79.49%*	*25.91%*	*258.09%*	*189.36%*	*266.67%*
9	Cardano	$8,714,615	$8,851,334	98,037	2,213	575
	30-Day % Change	*60.93%*	*58.20%*	*12.52%*	*5.31%*	*22.82%*
10	BNB	$8,185,137	$8,256,164	135,032	7,509	3,064
	30-Day % Change	*55.57%*	*57.95%*	*19.65%*	*116.09%*	*21.78%*

- The relatively new trend of Bitcoin Ordinals has helped maintain Bitcoin's dominance in the NFT marketplace. Sales volumes increased over 105% over the past rolling 30-day period. Meanwhile, Solana displayed the fastest relative growth, with total NFT sales volumes increasing over 232%.

Source: CF Benchmarks, cryptoslam.com.io, as of January 3, 2024

Appendix

CF Digital Asset Classification Structure

CF Digital Asset Classification Structure

The CF Digital Asset Classification Structure (CF DACS) classifies coins and tokens based on the services that the associated software protocol delivers to end users, grouping assets by the role they play in delivering services to end users. The CF DACS powers CF Benchmarks' sector composite and category portfolio indices and allows users to perform attribution analysis to better understand the fundamental drivers of returns within their digital asset portfolios.

CF Digital Asset Classification Structure

Additional Resources

For more information about our CF Benchmark indices and our methodologies, please visit the respective web links below:

- CF Diversified Large Cap Index
- CF DeFi Composite Index
- CF Web 3.0 Smart Contract Platforms Index
- CF Digital Culture Composite Index
- CF Blockchain Infrastructure Index
- CF Cryptocurrency Ultra Cap 5 Index
- CF Broad Cap Index Market Cap Weight
- CF Broad Cap Index Diversified Weight

Contact us

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info@cfbenchmarks.com

Appendix

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Appendix

Disclaimer and Disclosures (cont.)

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Appendix

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