

STATE OF THE MARKET

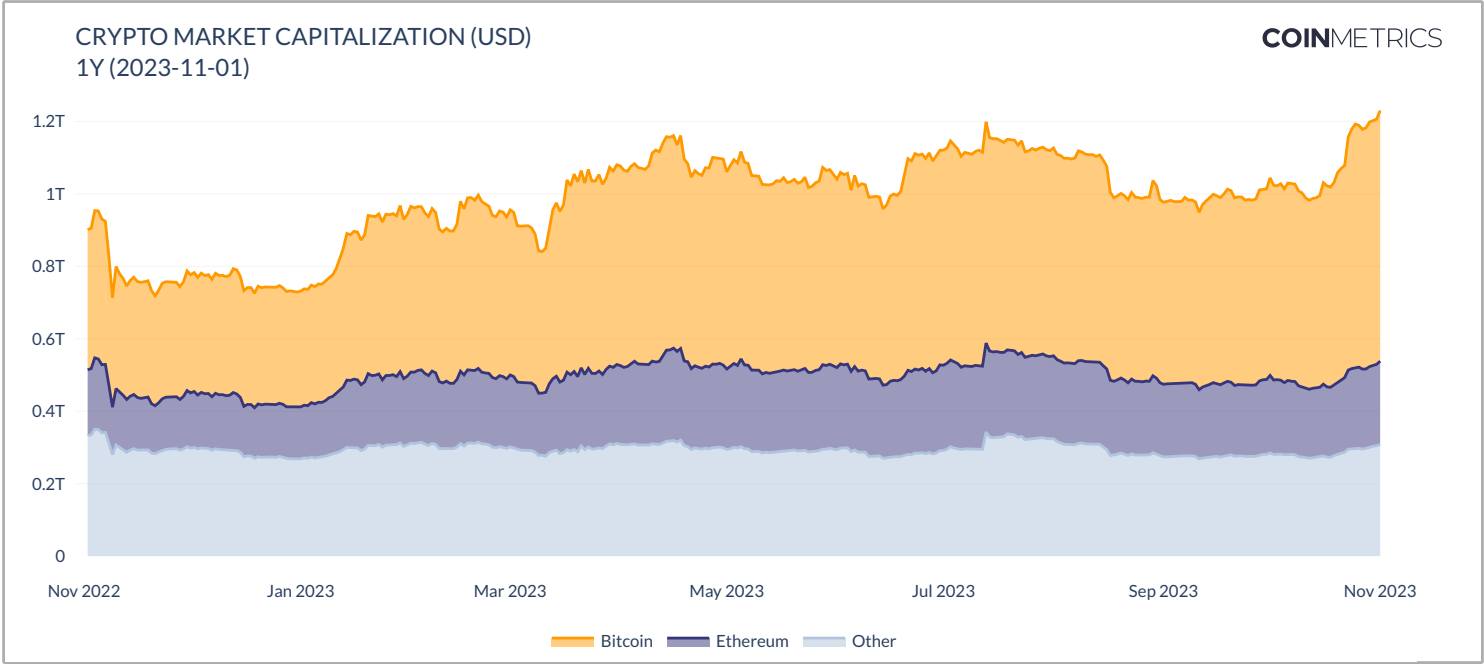
OCT. 26 - NOV. 1, 2023

Coin Metrics' State of the Market
provides an overview of cryptoasset
market activity



MARKET SUMMARY

Central banks have been careful not to spook investors, offering neither tricks nor treats as the economic outlook remains engulfed in a fog of uncertainty. On Wednesday, the Federal Reserve yet again matched investor expectations with unchanged rates, holding the benchmark interest rate at the current range of 5.25-5.50%. Though "inflation remains elevated," the FOMC's statement highlighted that the U.S. banking system remains "sound and resilient," with future decisions based on an "evolving outlook at the balance of risks." The crypto economy met the Fed's inaction with enthusiasm, with BTC reclaiming \$35K and heading higher as altcoins like SOL and ADA began outperforming. Following a brutal bear market for ETH, investor pessimism is beginning to abate, with analysts insisting Ether has the highest upside ahead. Crypto's 2nd-largest asset has underperformed Bitcoin significantly in 2023, with the ETH/BTC ratio tiptoeing along 0.05 support, tracking levels last seen around mid-2021. Nonetheless, a report from CoinShares reveals that fund managers are bullish on ETH's growth outlook, with 45% of survey respondents selecting the asset as their top pick for portfolio allocation. The renewed optimism is reflected on-chain, with the "recent large validator entry queue" indicating demand for staking yield, according to CoinShares. Analysts at K33 Research echo similar sentiments, citing the fact that premiums on CME's ETH futures once again match those of BTC, with 1-month annualized basis ticking up to ~11% for both assets. Despite its comforting moniker, SafeMoon's misleading marketing has landed its executives in criminal court. In a joint enforcement action with the SEC, the U.S. Attorney's Office for the Eastern District of New York has arrested 2 of the project's co-founders, with a 3rd affiliate still at large. A court filing claims that SafeMoon insiders plundered SFM liquidity pools, misappropriating "millions of dollars' worth of tokens" to fund purchases of luxury items like custom Porsche sports cars & real estate. The CFTC has also seen a sweeping increase in reports of wrongdoing, with a record-setting 1,530 whistleblowers coming forward in 2023. The commodities regulator claims that the majority of tips were related to crypto, with reports calling out everything from pump-and-dump schemes to false advertising. In Taiwan, crypto laundering schemes have also notched new highs. The country's police force recently revealed the bust of a massive money laundering operation back in June, with more than 324.2M USDT processed by a suspect surnamed Chiu, alongside 3 co-conspirators. In the U.K., regulators are tepidly reengaging with crypto business. After temporarily pausing crypto offerings for British customers, PayPal is once again resuming service under a new entity, "PayPal UK Limited." The 2nd iteration of their U.K.-based platform is now saddled with stringent compliance requirements, barring PayPal from offering peer-to-peer transactions, staking services, or DeFi activities, among many others. A late-breaking announcement that the SEC has served PayPal a subpoena over their PYUSD stablecoin underscores the immense difficulty of balancing fintech innovation with regulatory appeasement. For TradFi, it remains to be seen whether asking for permission or forgiveness will yield better results in the fiercely competitive domain of digital assets.



PRICE (CMBI CONSTITUENTS)

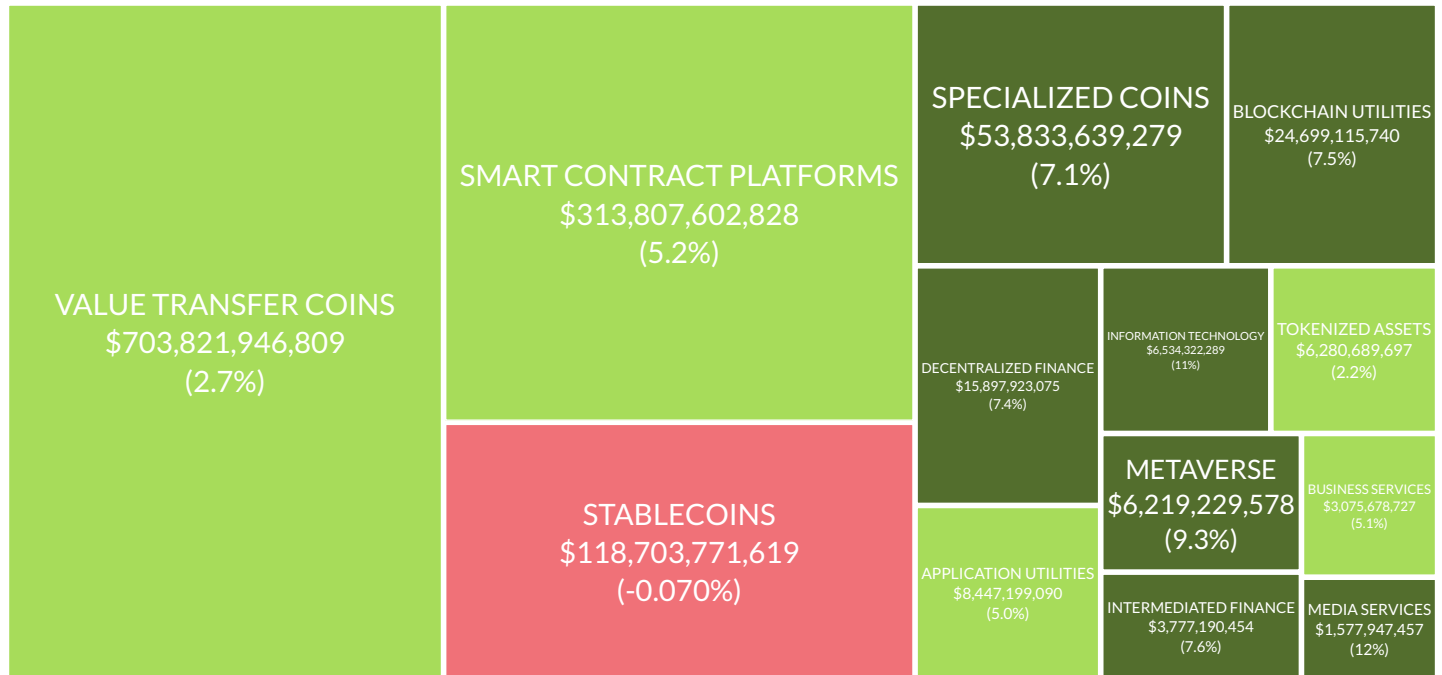
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
BTC	\$34,587.32	+1.72%	\$34,592.79	\$33,669.23	+70.82%	\$34,659.64	\$15,799.60
ETH	\$1,834.77	+2.51%	\$1,834.77	\$1,772.41	+18.85%	\$2,129.88	\$1,103.83
SOL	\$42.71	+35.58%	\$42.71	\$31.50	+36.57%	\$42.71	\$8.35
ADA	\$0.30	+5.65%	\$0.30	\$0.28	-24.03%	\$0.45	\$0.24
DOGE	\$0.07	-4.31%	\$0.07	\$0.07	-46.67%	\$0.13	\$0.06
TRX	\$0.10	+8.25%	\$0.10	\$0.09	+61.90%	\$0.10	\$0.05
BNB	\$226.59	+1.98%	\$228.07	\$222.19	-31.52%	\$353.50	\$204.88
AVAX	\$12.05	+12.04%	\$12.05	\$10.55	-34.37%	\$22.04	\$8.82
LINK	\$11.25	+5.81%	\$11.29	\$10.63	+44.20%	\$11.29	\$5.09
XLM	\$0.12	+8.67%	\$0.12	\$0.11	+11.44%	\$0.17	\$0.07
CMBI10	\$3,410.52	+2.63%	\$3,410.52	\$3,295.89	+37.64%	\$3,410.52	\$1,838.40

ASSET CLASSES

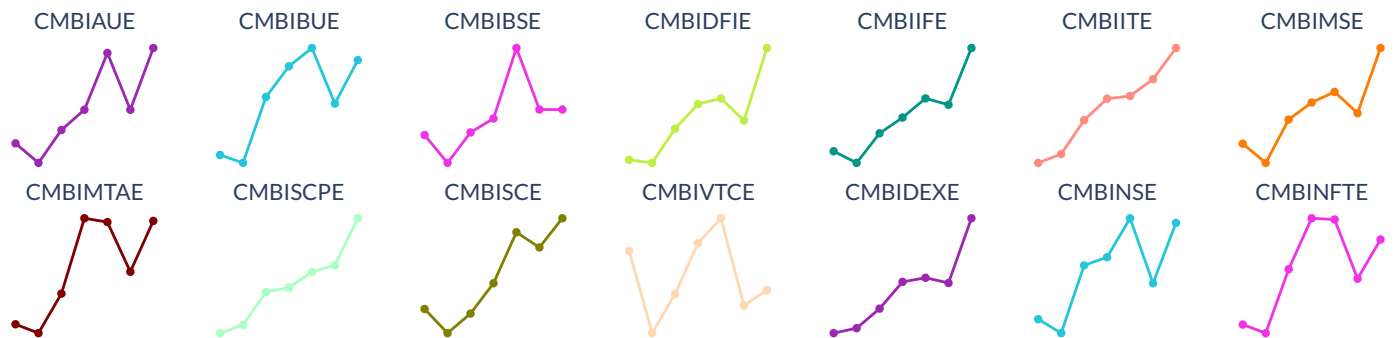
DIGITAL ASSET SECTOR 7D MARKETCAP (2023-11-01)

COINMETRICS



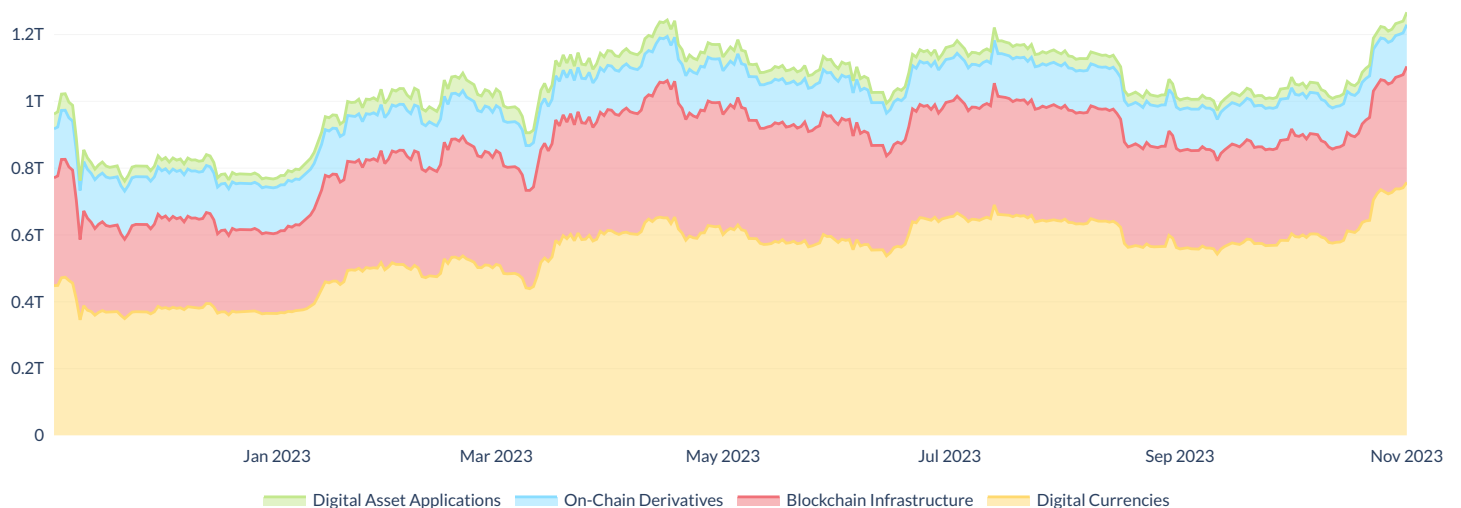
TRENDING SECTOR INDEXES, 7 DAY TREND

COINMETRICS



CRYPTO MARKET CAPITALIZATION (USD)
BY DATONOMY CLASS

COINMETRICS



INDEX ROUNDUP

SINGLE ASSET INDEXES

The CMBI Single Asset series are institutionally designed cryptoasset benchmarks that accurately & reliably represent a real-time market aggregate USD value for singular crypto assets.

INDEX	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
CMBIBTC	\$34,587.32	+1.72%	\$34,592.79	\$33,669.23	+70.82%	\$34,659.64	\$15,799.60
CMBIBTCT	\$37,160.21	+1.72%	\$37,166.09	\$36,173.83	+70.82%	\$37,237.91	\$16,974.91
CMBIETH	\$1,834.77	+2.51%	\$1,834.77	\$1,772.41	+18.85%	\$2,129.88	\$1,103.83
CMBIETHHT	\$1,991.81	+2.51%	\$1,991.81	\$1,924.11	+18.85%	\$2,312.19	\$1,198.31

CMBI BITCOIN
1Y (2023-11-01)

COINMETRICS



CMBI ETHEREUM
1Y (2023-11-01)

COINMETRICS



TRENDING INDEXES, 7 DAY TREND

COINMETRICS

CMBIAPE

CMBISOL

CMBIAAVE

CMBIADA

CMBILTC

CMBILINK

CMBIDOT

CMBIUNI

MULTI ASSET INDEXES

The CMBI Multi Asset series are institutionally designed cryptoasset benchmarks that accurately & reliably represent a real-time market aggregate USD value for baskets of crypto assets.

INDEX	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
CMBI10	\$3,410.52	+2.63%	\$3,410.52	\$3,295.89	+37.64%	\$3,410.52	\$1,838.40
CMBI10E	\$5,045.78	+8.24%	\$5,045.78	\$4,661.80	-14.84%	\$6,420.90	\$3,409.70
CMBI10EX	\$6,695.78	+4.18%	\$6,695.78	\$6,391.77	+2.65%	\$7,991.44	\$4,562.49
CMBI10M	\$10,829.90	+6.77%	\$10,829.90	\$10,142.87	-10.87%	\$13,044.36	\$9,310.27
CMBIBE	\$16,703.82	+1.97%	\$16,703.82	\$16,220.51	+50.55%	\$16,703.82	\$8,387.96

CMBI 10
1Y (2023-11-01)

COINMETRICS



CMBI 10 MOMENTUM
1Y (2023-11-01)

COINMETRICS



MARKET MOVEMENT

TRADING DIARY, 7 DAY

ADVANCING VOLUME \$143,471,692,410

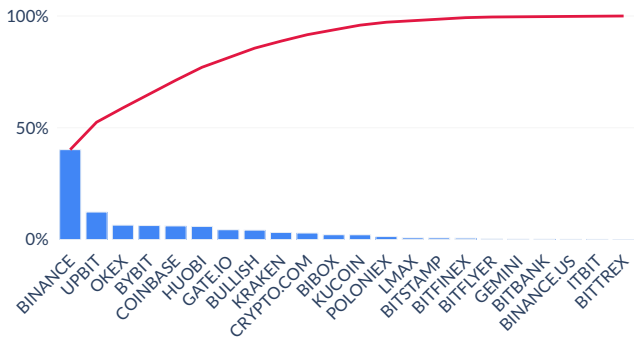
DECLINING VOLUME \$14,838,140,270

ADVANCES 561

DECLINES 159

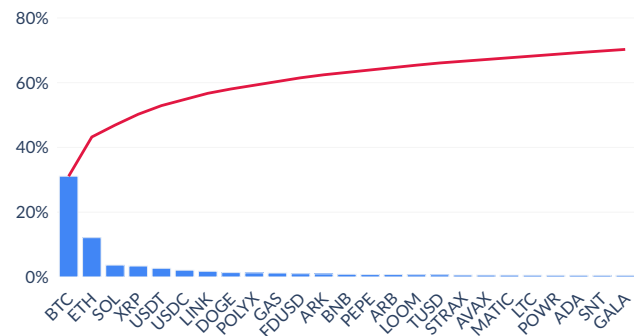
EXCHANGE SPOT SHARE, 7 DAY MEAN

COINMETRICS



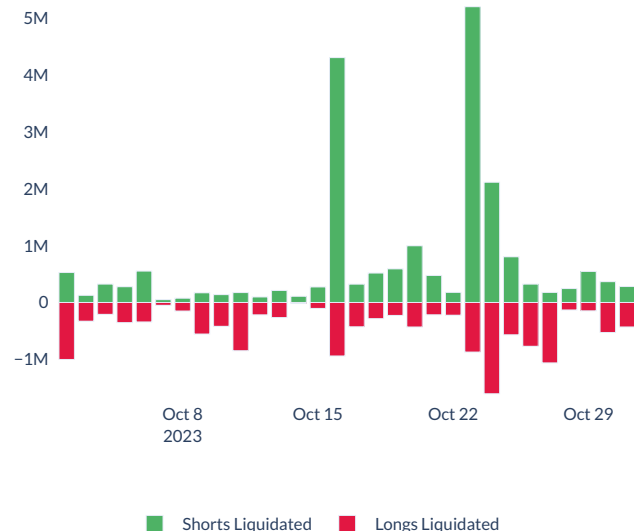
BASE ASSET SPOT SHARE, 7 DAY MEAN

COINMETRICS



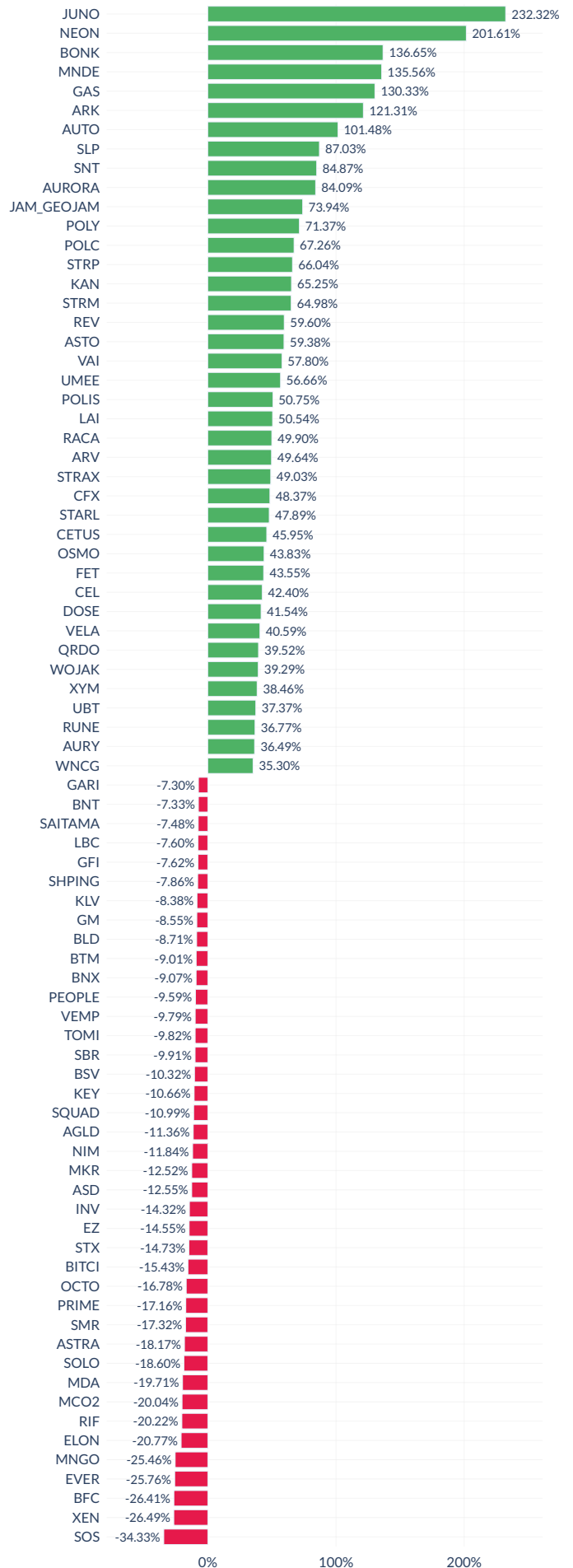
BTC PERPETUALS, TOTAL LIQUIDATIONS

COINMETRICS



PRICE CHANGE, 7 DAY

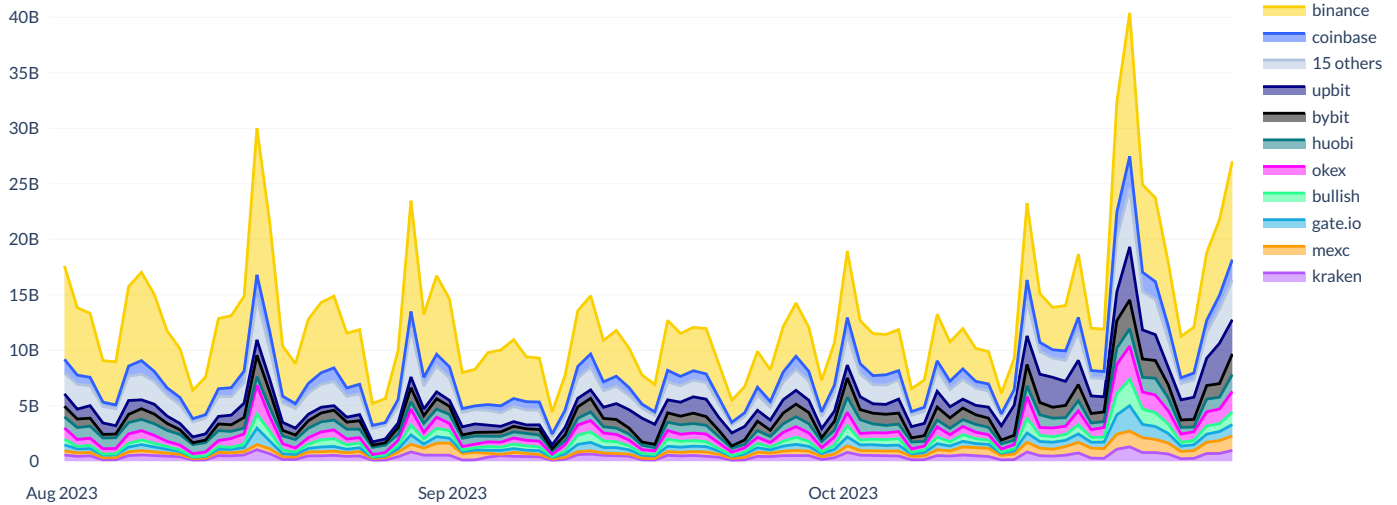
COINMETRICS



AGGREGATE VOLUME

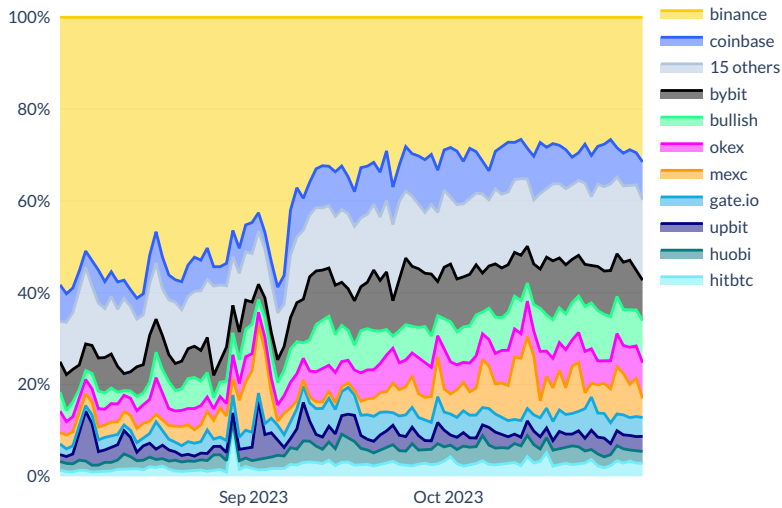
REPORTED SPOT VOLUME (USD)
BY EXCHANGE 3M (2023-11-01)

COINMETRICS



BTC SPOT VOLUME, % BY EXCHANGE
3M (2023-11-01)

COINMETRICS



BTC SPOT VOLUME LEADERS

Top 10 exchanges by Bitcoin (BTC) spot volume reported over past 3 months.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	+32.65%	1,504,944,322	2,462,308,172	776,163,979
COINBASE	+3.80%	422,555,442	642,632,882	174,346,917
BYBIT	+8.39%	494,185,549	688,554,660	253,624,029
BULLISH	+4.59%	461,086,082	714,493,422	220,654,635
OKEX	+87.57%	350,703,466	610,289,568	191,674,826
MEXC	-26.58%	363,553,921	439,495,314	280,442,035
GATE.IO	-10.91%	228,212,545	360,274,204	99,711,699
UPBIT	-6.21%	168,685,818	274,583,868	88,985,824
HUOBI	+27.14%	134,375,897	200,910,230	90,166,581
HITBTC	+76.51%	140,800,485	223,061,232	90,934,177

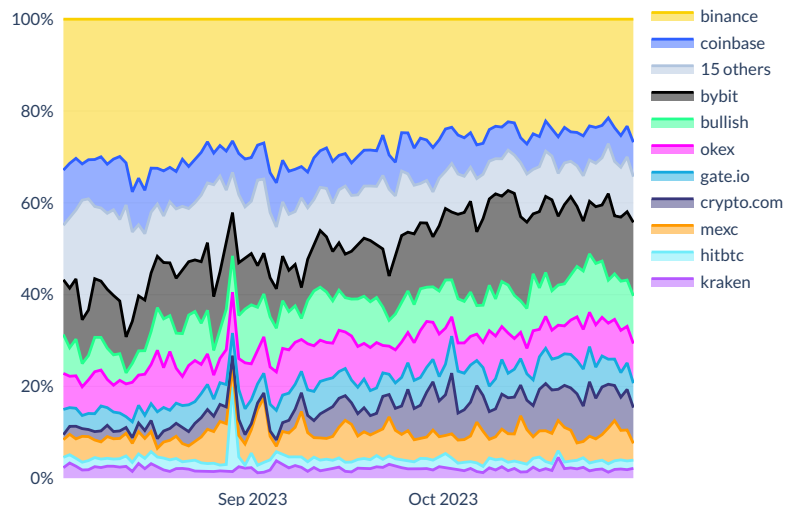
ETH SPOT VOLUME LEADERS

Top 10 exchanges by Ethereum (ETH) spot volume reported over past 3 months.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	+3.19%	632,206,499	1,034,915,429	271,844,229
COINBASE	-12.91%	186,928,937	332,209,212	70,989,951
BYBIT	+17.47%	368,452,940	618,306,094	173,553,606
BULLISH	-29.42%	292,897,526	568,370,398	118,428,412
OKEX	-15.09%	226,067,154	392,528,488	99,260,034
GATE.IO	-28.82%	155,511,784	288,142,043	68,896,204
CRYPTO.COM	-20.08%	223,406,571	375,899,306	105,165,975
MEXC	-32.45%	147,962,271	208,995,153	98,548,995
HITBTC	-8.24%	48,191,923	75,037,469	23,084,517
KRAKEN	+3.15%	50,373,238	82,852,921	16,556,438

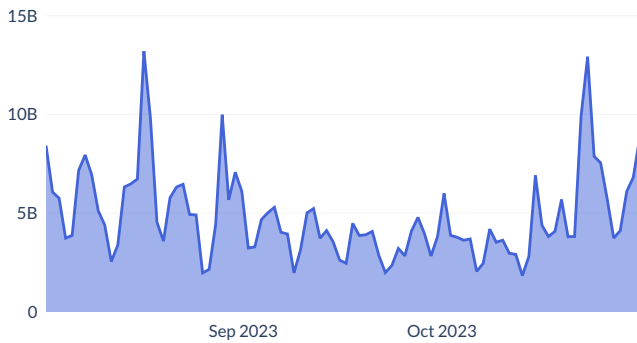
ETH SPOT VOLUME, % BY EXCHANGE
3M (2023-11-01)

COINMETRICS

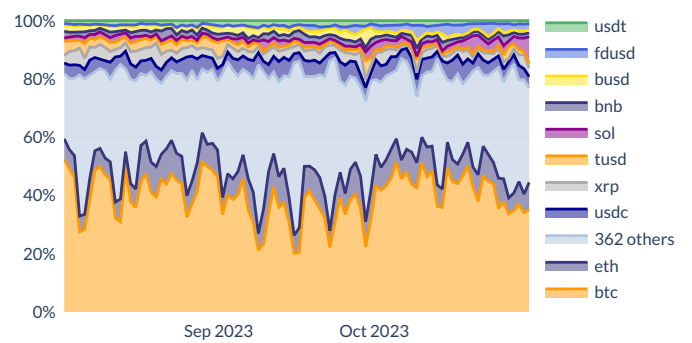


EXCHANGE SPOT VOLUME

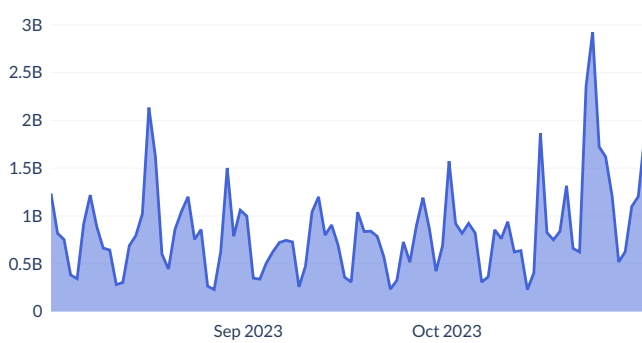
BINANCE DAILY USD SPOT VOLUME
3M (2023-11-01) COINMETRICS



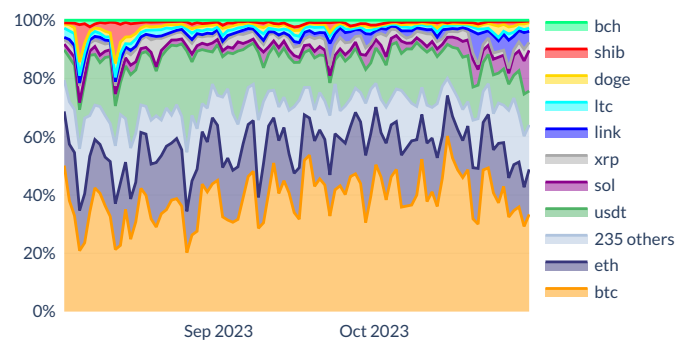
BINANCE SPOT VOLUME, % BY ASSET
3M (2023-11-01) COINMETRICS



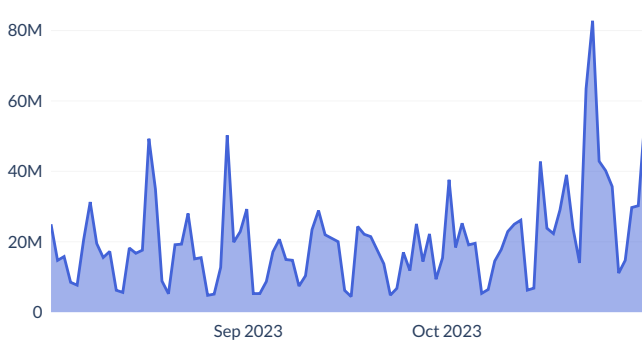
COINBASE DAILY USD SPOT VOLUME
3M (2023-11-01) COINMETRICS



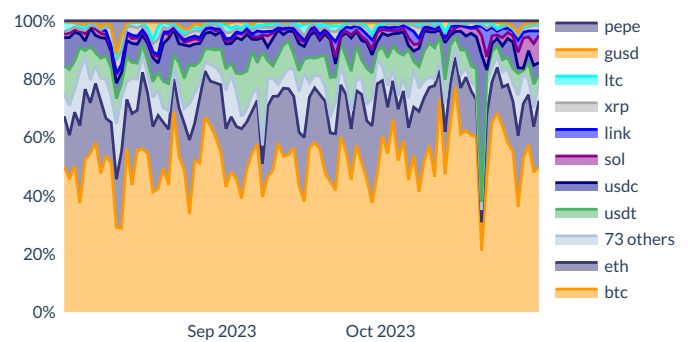
COINBASE SPOT VOLUME, % BY ASSET
3M (2023-11-01) COINMETRICS



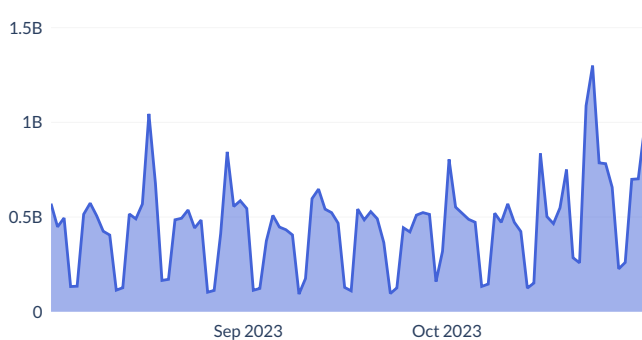
GEMINI DAILY USD SPOT VOLUME
3M (2023-11-01) COINMETRICS



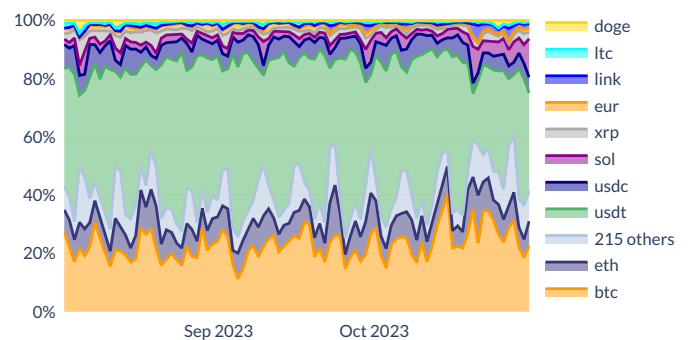
GEMINI SPOT VOLUME, % BY ASSET
3M (2023-11-01) COINMETRICS



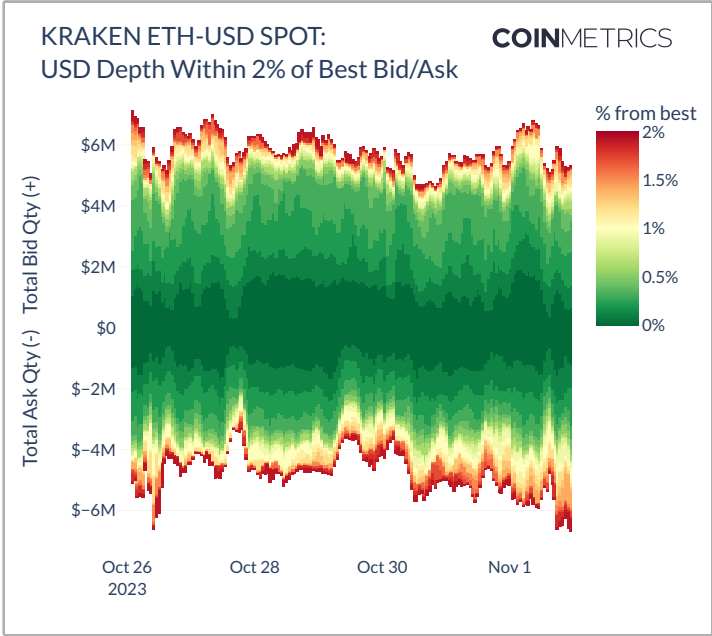
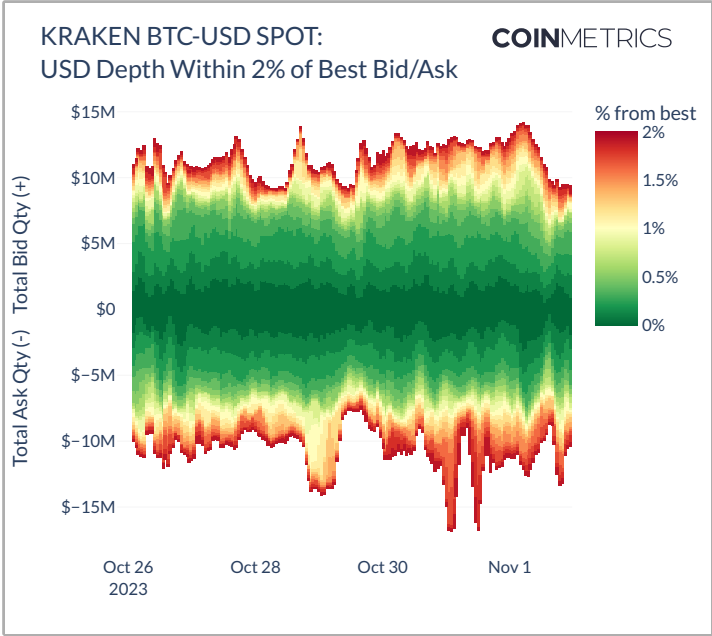
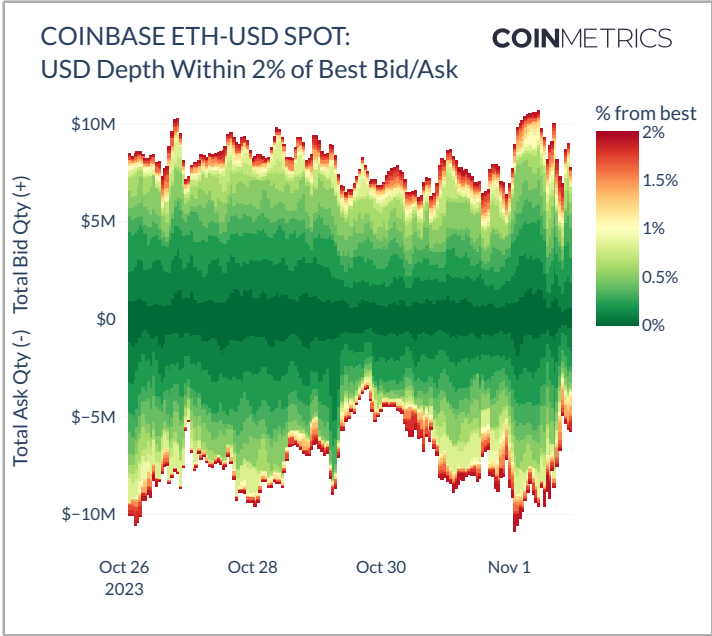
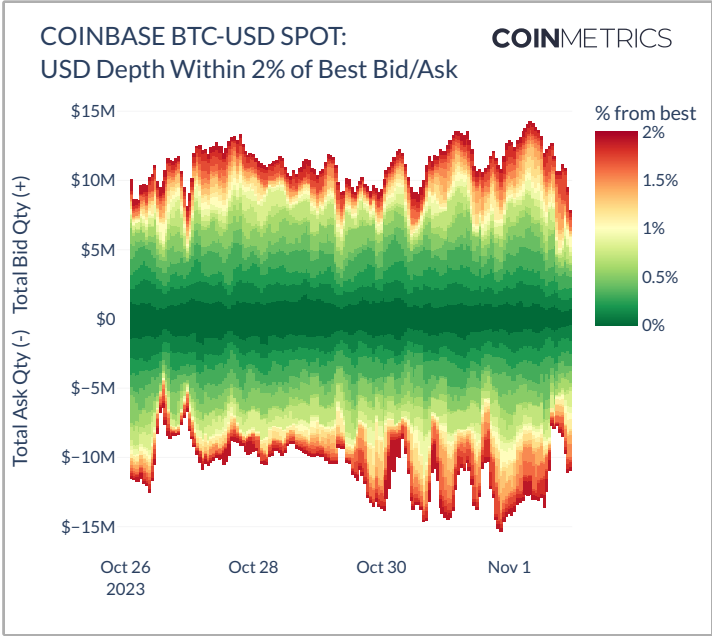
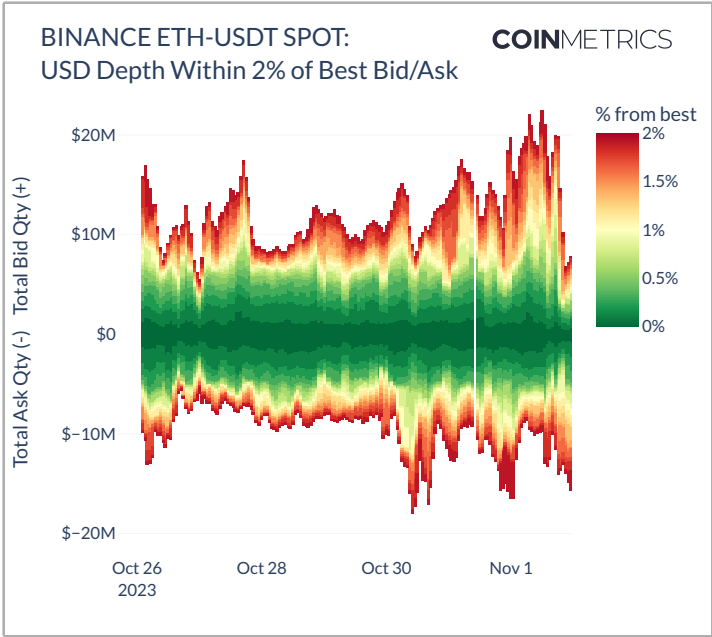
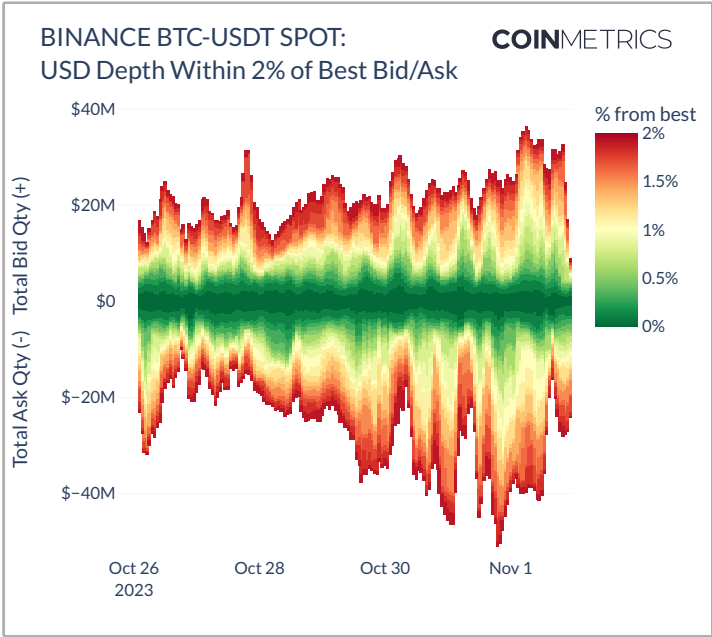
KRAKEN DAILY USD SPOT VOLUME
3M (2023-11-01) COINMETRICS



KRAKEN SPOT VOLUME, % BY ASSET
3M (2023-11-01) COINMETRICS



ORDER BOOK DEPTH



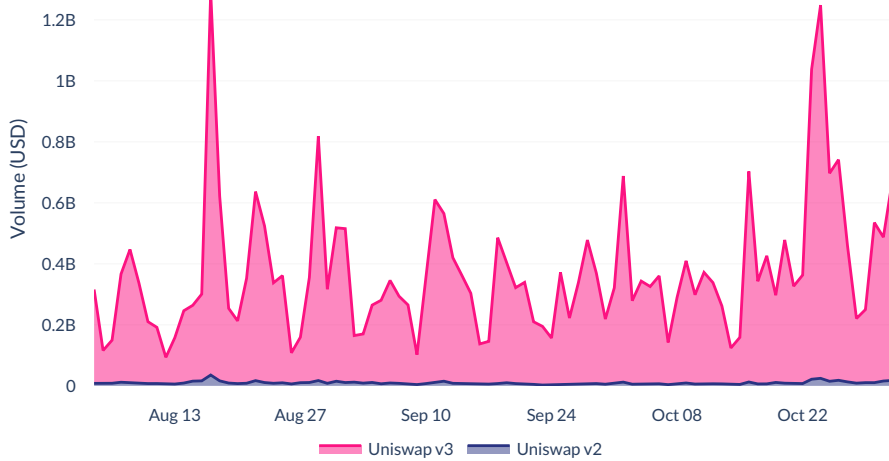
DEX DIGEST

COINMETRICS

RIISING VOLUME



UNISWAP DAILY TRADING VOLUME (2023-11-01)



COINMETRICS

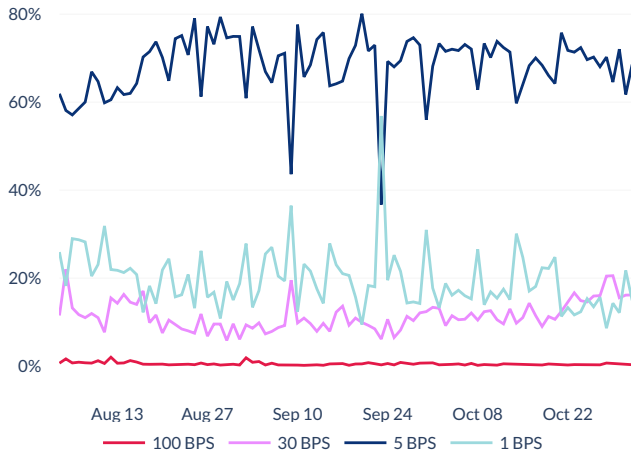
COINMETRICS

FALLING VOLUME



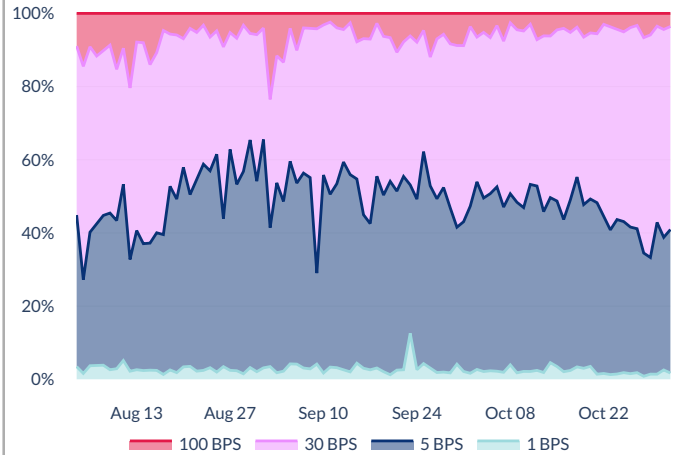
UNISWAP V3 VOLUME BY FEE TIER (2023-11-01)

COINMETRICS



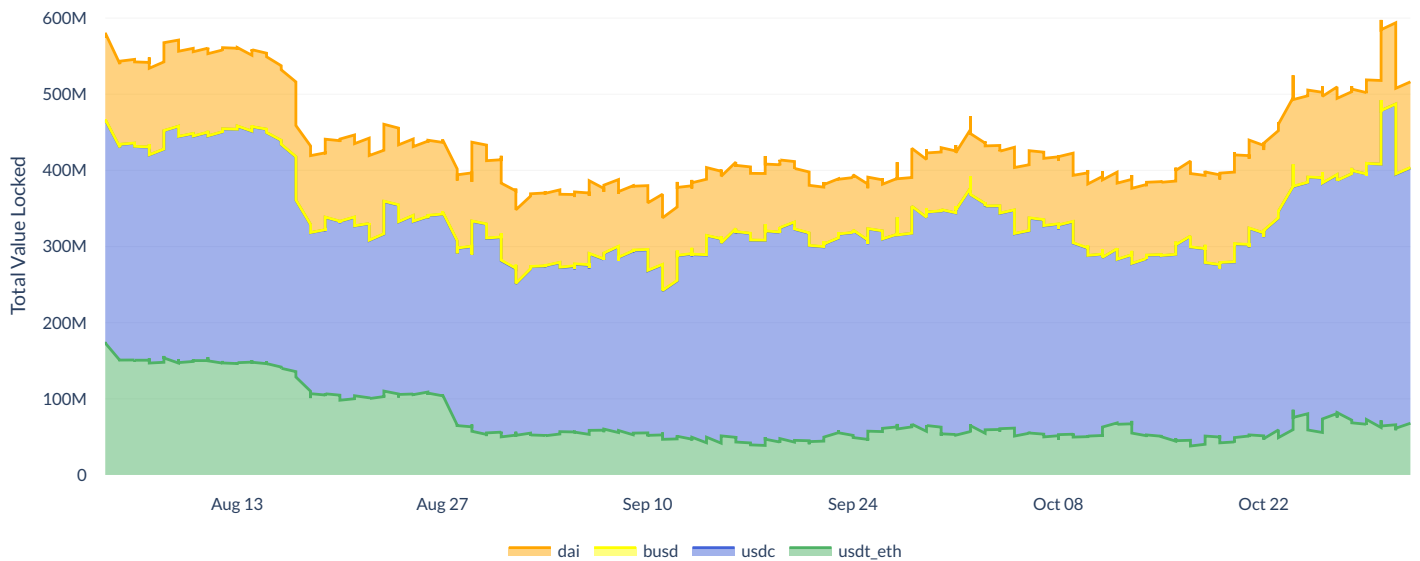
UNISWAP V3 REVENUE BY FEE TIER (2023-11-01)

COINMETRICS



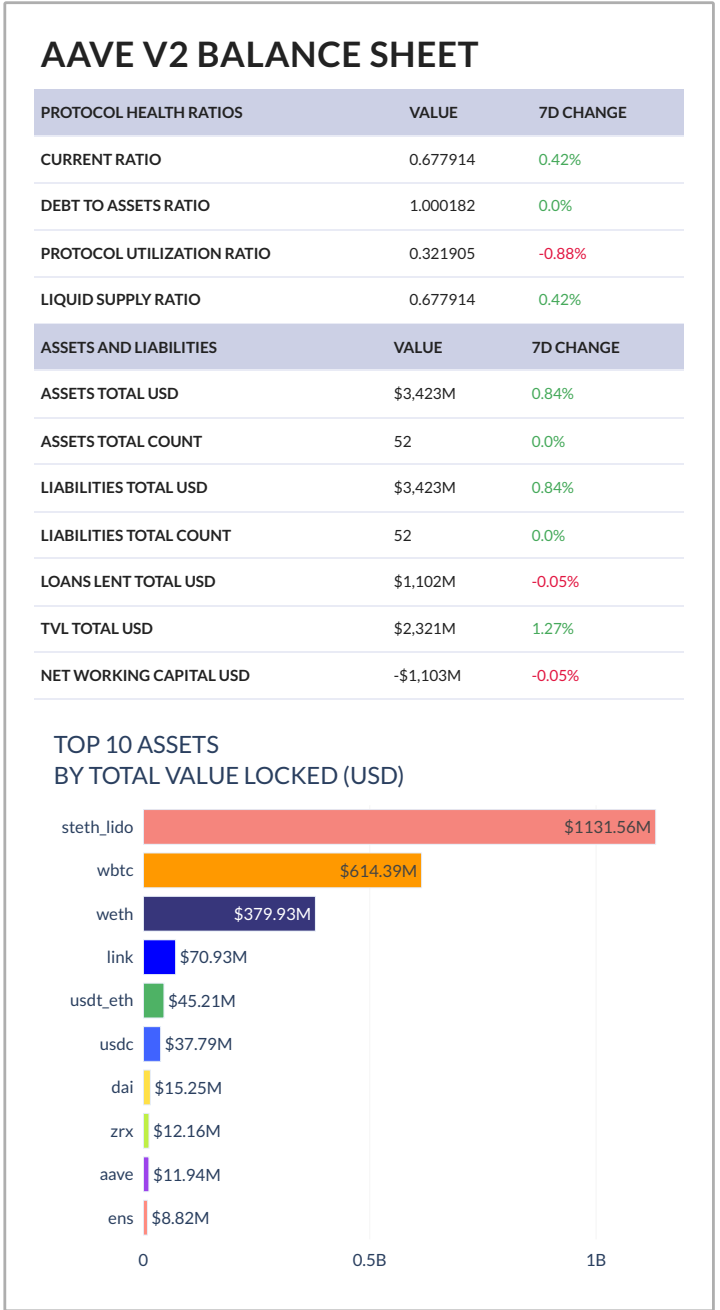
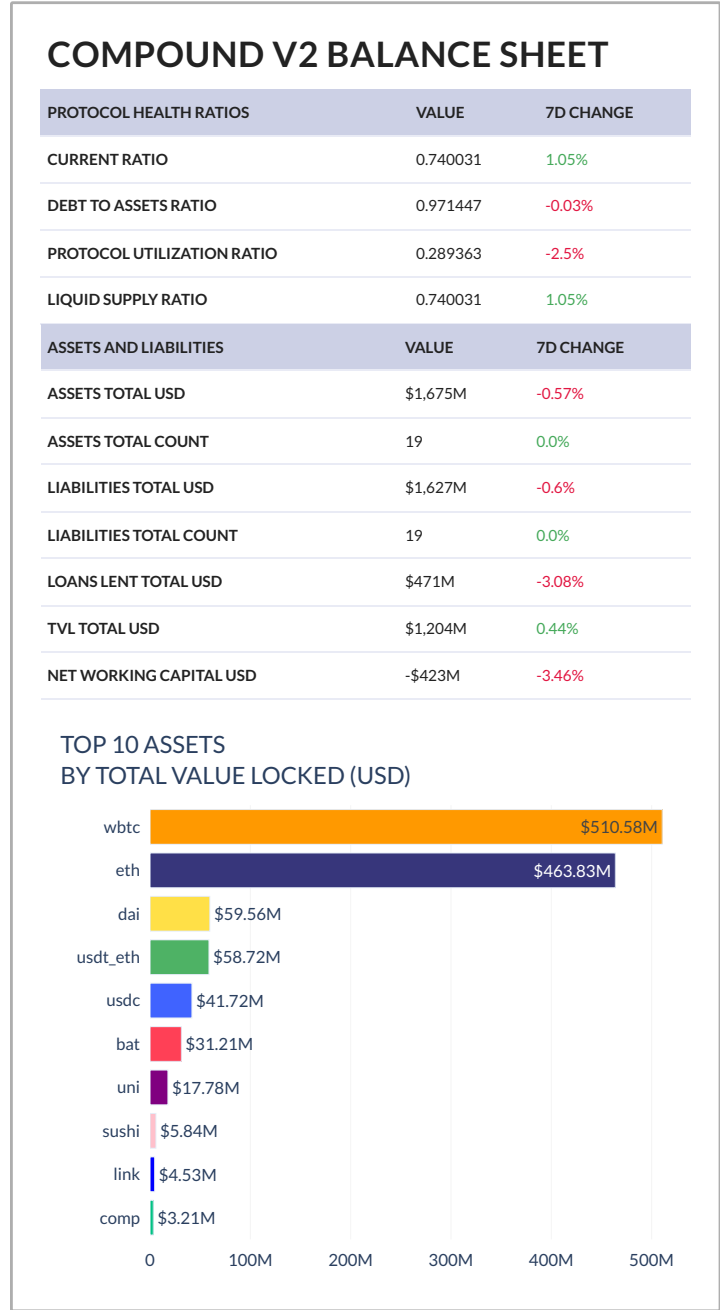
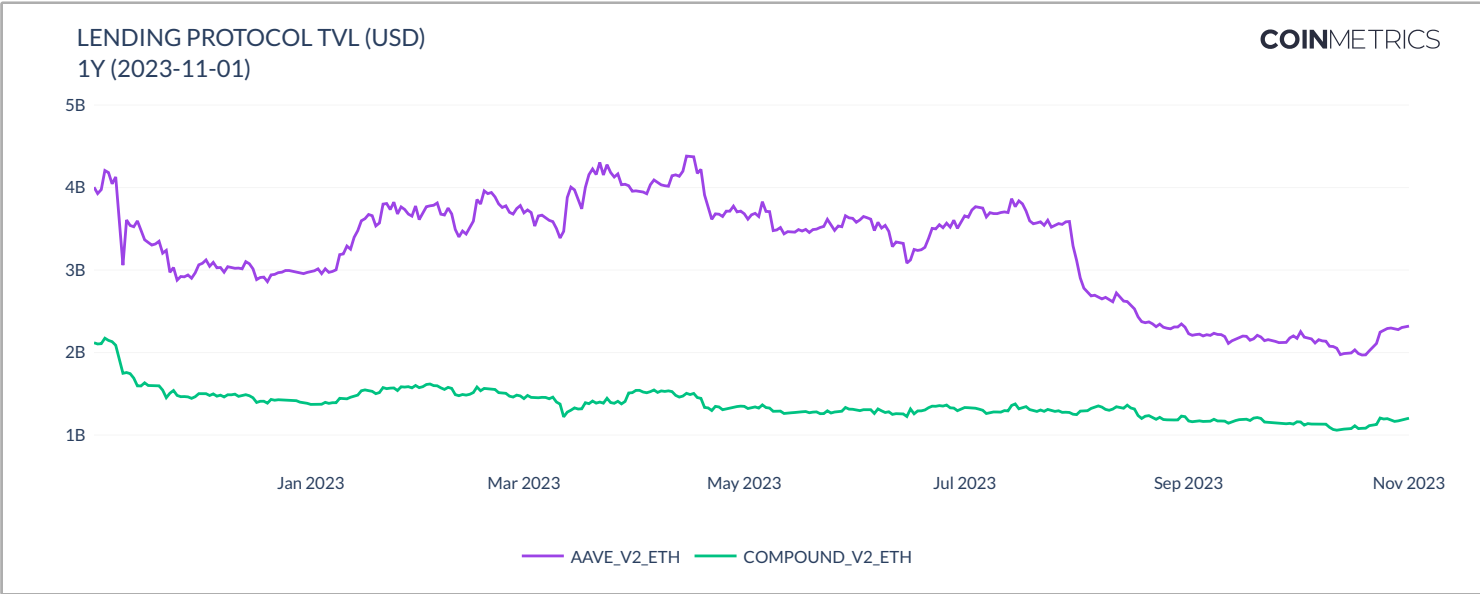
UNISWAP V3 STABLECOIN TVL (2023-11-01)

COINMETRICS

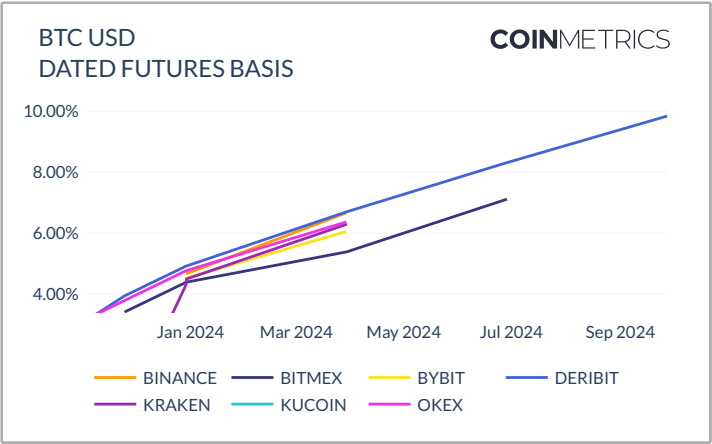
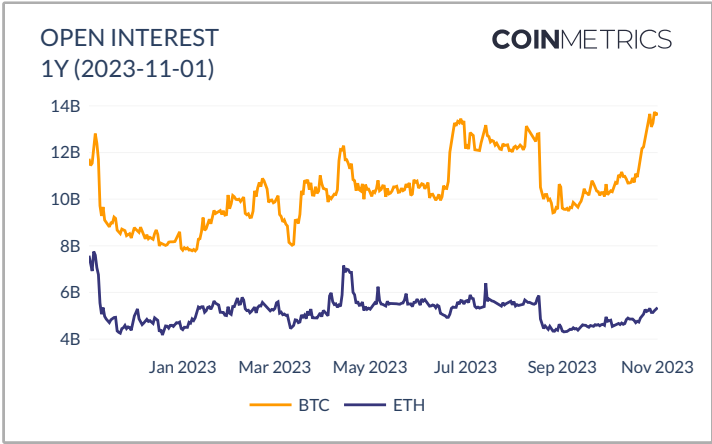


Note: DEX metrics currently capture a subset of the top liquidity pools on the Ethereum-based instantiation of each protocol.

DEFI BALANCE SHEETS



FUTURES FEED



OPEN INTEREST

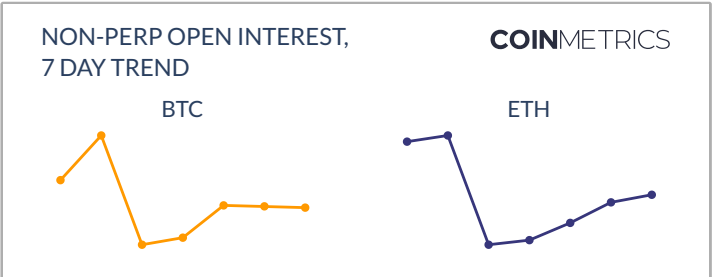
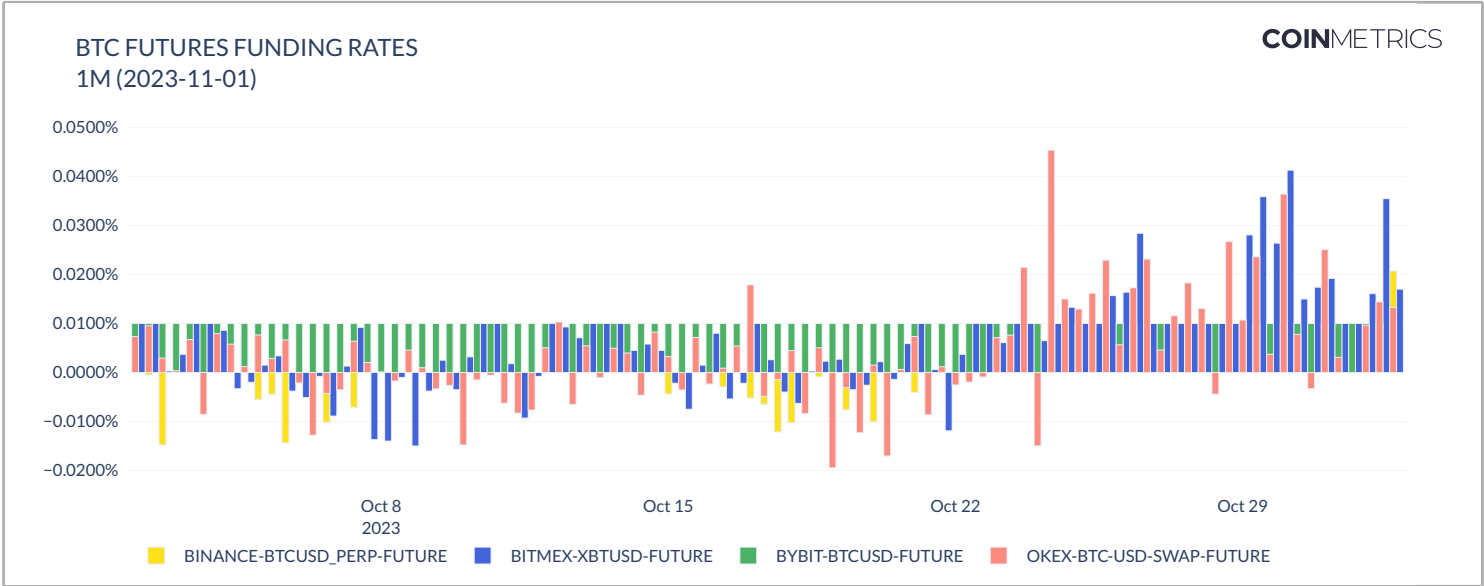
Sum of all reported open interest from futures markets in USD

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+2.07%	13,501,281,675	13,742,043,452	13,097,937,195
ETH	+2.35%	5,244,770,080	5,350,216,947	5,142,665,697
XRP	+15.16%	464,487,996	514,575,974	434,921,779
LINK	+1.70%	286,226,130	291,147,529	277,299,839
ADA	+11.43%	112,781,147	121,923,168	105,676,814
CRO	+6.48%	4,045,695	4,301,453	3,849,925
LTC	+0.78%	210,976,536	216,767,521	205,408,340
BCH	-13.00%	205,071,559	220,852,358	192,133,189
UNI	+22.45%	57,179,469	63,695,963	52,016,594

FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+33.08%	28,877,815,668	47,581,196,812	14,414,306,492
ETH	-12.44%	12,620,344,830	21,372,003,049	5,424,214,106
XRP	+31.32%	1,630,322,393	3,091,352,551	470,735,279
LINK	-12.94%	1,939,084,546	2,503,858,564	1,268,579,727
ADA	-13.64%	308,005,816	446,355,329	171,771,474
CRO	-4.01%	5,388,463	14,436,102	1,557,797
LTC	-17.52%	495,589,415	740,689,760	281,920,460
BCH	-26.62%	436,358,199	645,428,816	271,832,576
UNI	+134.41%	219,700,195	571,397,240	70,448,678



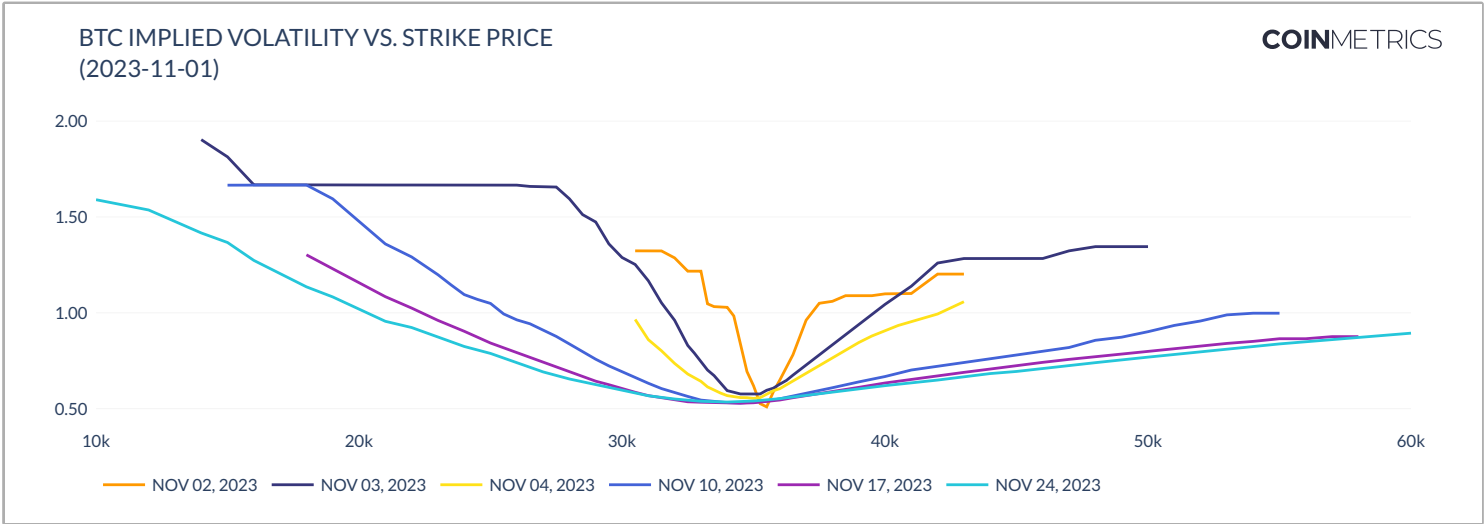
OPTIONS SNAPSHOT

BTC OPEN INTEREST

TOTAL	\$12,238,285,437
CALLS	\$8,536,206,489
PUTS	\$3,702,078,948

ETH OPEN INTEREST

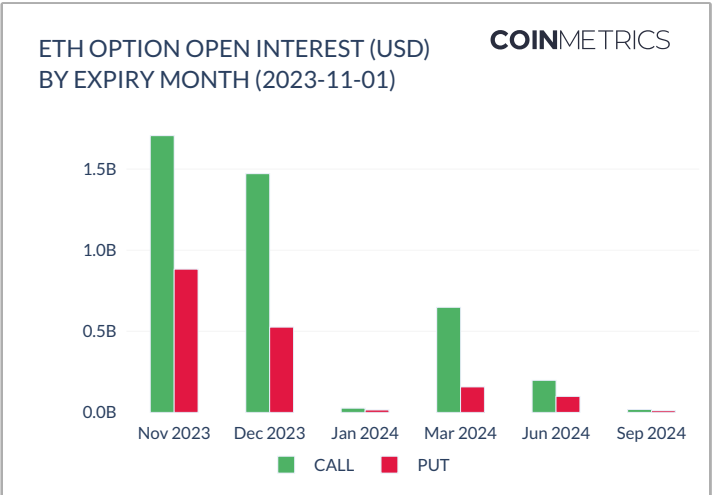
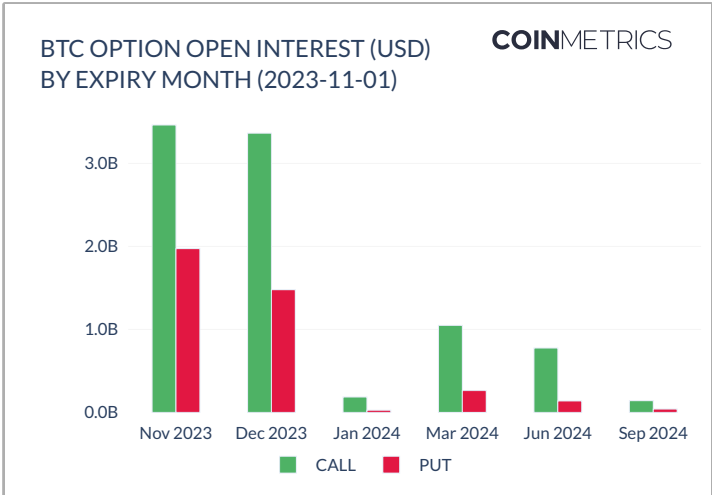
TOTAL	\$5,514,442,236
CALLS	\$3,902,034,977
PUTS	\$1,612,407,259



AT THE MONEY OPTIONS

Market greeks, implied volatility, and mark contract prices for BTC options at or near strike price.

CALLS							PUTS							
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
11.369	-75.82846	1.79314	0.66009	0.0003	0.8918	0.0482	BTC-2NOV23-33750	0.0004	0.8913	0.0003	-0.33991	-0.97955	-75.82846	11.369
12.11186	-80.78312	1.58833	0.58284	0.00031	0.8038	0.0413	BTC-2NOV23-34000	0.0004	0.8037	0.00031	-0.41716	-1.2049	-80.78312	12.11186
12.3794	-82.56756	1.37415	0.50283	0.00032	0.7327	0.0343	BTC-2NOV23-34250	0.0006	0.7326	0.00032	-0.49717	-1.43961	-82.56756	12.3794
12.1501	-81.03815	1.15962	0.42328	0.00032	0.6219	0.0274	BTC-2NOV23-34500	0.0006	0.6219	0.00032	-0.57672	-1.67468	-81.03815	12.1501
7.98068	-102.74809	1.22844	0.73598	0.00028	0.6041	0.0501	BTC-3NOV23-33750	0.0014	0.6041	0.00028	-0.26402	-0.46612	-102.74809	7.98068
1.62703	-1.47921	0.14349	0.00916	0.00001	0.5664	0.0434	BTC-3NOV23-34000	0.0017	0.5665	0.00001	-0.99084	-20.34837	-1.47919	1.62701
9.55676	-120.7658	0.97004	0.57697	0.00035	0.5452	0.037	BTC-3NOV23-34250	0.0024	0.5452	0.00035	-0.42303	-0.74963	-120.7658	9.55676
22.89078	-65.82105	5.27168	0.58405	0.00011	0.536	0.0311	BTC-3NOV23-34500	0.0034	0.5361	0.00011	-0.41587	-4.39495	-65.81964	22.89028
10.24274	-68.31659	2.00478	0.73505	0.00026	0.552	0.0519	BTC-4NOV23-33750	0.0027	0.5519	0.00026	-0.26448	-0.76658	-68.25887	10.23409
11.39491	-76.00124	1.82021	0.66496	0.00029	0.5391	0.0457	BTC-4NOV23-34000	0.0035	0.5391	0.00029	-0.33504	-0.97301	-76.00124	11.39491



MARKET CAPITALIZATION

MARKET CAPITALIZATION, 7 DAY TREND



MARKET CAP

USD value of current supply. Also referred to as market capitalization.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+3.69%	673,166,522,433	692,001,591,886	661,861,216,442
ETH	+2.47%	223,791,346,241	229,235,199,963	220,262,694,728
XRP	+10.06%	56,957,890,028	60,913,405,862	54,491,943,923
LINK	+5.82%	11,192,478,192	11,609,263,436	10,913,480,170
ADA	+6.87%	10,198,929,441	10,618,096,505	9,935,348,487
CRO	+4.96%	6,051,736,498	6,231,857,737	5,929,374,493
LTC	+1.47%	5,065,954,208	5,158,262,962	4,945,350,387
BCH	-1.03%	4,785,188,341	4,836,571,360	4,676,718,420
UNI	+16.51%	4,211,608,152	4,785,588,976	4,024,729,298
FTT	-2.02%	415,906,781	425,937,687	401,792,600

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+3.77%	473,119,439,327	486,600,788,794	465,102,737,945
ETH	+2.26%	197,707,454,854	202,279,788,996	194,688,563,569
XRP	+10.16%	26,946,620,923	28,837,860,687	25,772,159,184
LINK	+5.82%	6,101,690,064	6,328,821,953	5,949,636,607
ADA	+7.04%	9,097,394,665	9,481,107,784	8,857,637,742
CRO	+9.39%	577,874,169	616,326,697	562,706,291
LTC	+1.45%	4,281,832,469	4,359,509,934	4,180,270,414
BCH	-1.02%	3,224,758,353	3,259,339,435	3,151,670,731
UNI	+19.71%	1,085,717,691	1,238,027,018	1,034,204,141
FTT	-2.02%	415,906,781	425,937,687	401,792,600

REALIZED CAP

USD value for all native units based on the USD closing price on the day that a unit last moved.

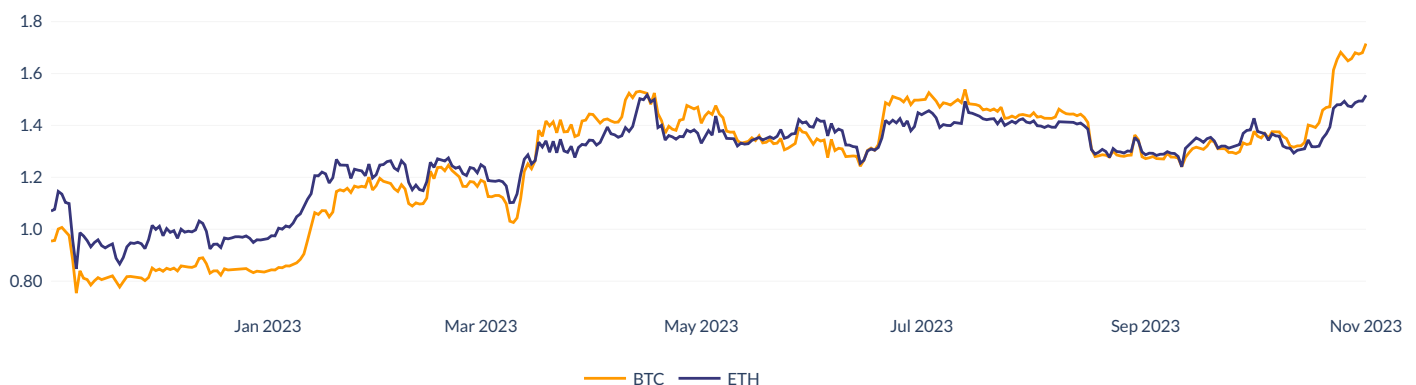
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.57%	402,059,235,254	403,421,539,080	401,153,634,044
ETH	+0.89%	150,164,926,610	151,178,478,468	149,647,452,740
XRP	+1.69%	52,330,695,126	53,044,016,868	52,132,255,684
LINK	+1.17%	8,855,563,625	8,913,671,058	8,810,376,847
ADA	+0.88%	15,470,641,603	15,529,103,969	15,393,081,685
CRO	+0.17%	20,540,764,747	20,566,809,077	20,532,633,658
LTC	-0.21%	6,734,735,886	6,744,242,574	6,728,868,506
BCH	-0.19%	4,733,368,994	4,742,646,454	4,727,920,631
UNI	-0.74%	7,828,254,040	7,895,448,764	7,801,397,630
FTT	-0.07%	637,438,593	637,697,695	636,931,768

MARKET VALUE TO REALIZED VALUE

The ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+3.11%	1.67	1.72	1.65
ETH	+1.56%	1.49	1.52	1.47
XRP	+8.23%	1.09	1.15	1.05
LINK	+4.60%	1.26	1.30	1.24
ADA	+5.94%	0.66	0.68	0.65
CRO	+4.79%	0.29	0.30	0.29
LTC	+1.68%	0.75	0.77	0.73
BCH	-0.84%	1.01	1.02	0.99
UNI	+17.37%	0.54	0.61	0.52
FTT	-1.95%	0.65	0.67	0.63

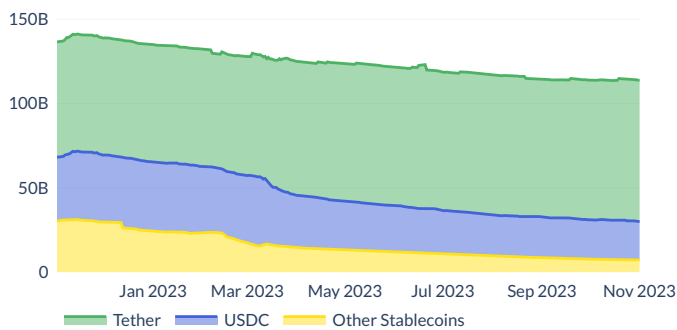
MARKET VALUE TO REALIZED VALUE 1Y (2023-11-01)



STABLECOINS REPORT

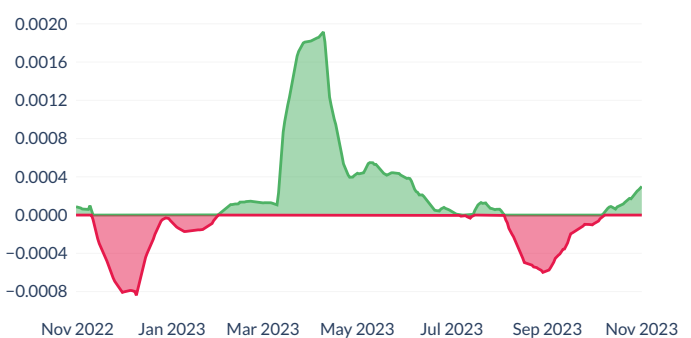
TOTAL STABLECOINS SUPPLY
1Y (2023-11-01)

COINMETRICS



TETHER PREMIUM/DISCOUNT TO USD
1Y (2023-11-01)

COINMETRICS



MARKET CAPITALIZATION

USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.02%	39,038,249,311	39,043,860,404	39,031,712,930
USDT_OMNI	+0.02%	888,308,642	888,435,980	888,159,567
USDT_TRX	+0.02%	44,845,748,407	44,852,177,004	44,838,222,425
PAX	-8.52%	469,564,634	482,255,783	437,531,868
DAI	-1.10%	3,750,416,317	3,770,776,519	3,729,451,339
USDC	-1.62%	22,959,268,933	23,133,887,272	22,758,853,103
BUSD	-3.14%	2,038,366,062	2,062,949,386	1,998,229,708
GUSD	-0.07%	162,604,743	163,293,572	162,180,868

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-4.91%	2,787,970,944	3,674,363,961	979,834,155
USDT_OMNI	+2,076.03%	919,462	2,281,401	14,966
USDT_TRX	+9.43%	10,439,010,789	12,928,659,511	5,145,258,355
PAX	+323.05%	57,622,146	167,981,525	1,786,109
DAI	+27.87%	3,214,561,059	4,708,186,423	1,747,327,340
USDC	-6.06%	3,500,054,493	5,671,257,950	1,291,170,915
BUSD	-34.47%	31,857,284	126,688,850	4,140,414
GUSD	+140.25%	1,721,923	3,780,952	71,073

MARKET CAPITALIZATION, 7 DAY TREND

COINMETRICS



TRANSFER VALUE, 7 DAY TREND

COINMETRICS



TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+5.80%	113,824	130,413	86,100
USDT_OMNI	+60.61%	38	74	13
USDT_TRX	+11.77%	2,015,601	2,255,734	1,736,794
PAX	+23.28%	116	143	81
DAI	-4.25%	4,570	5,253	3,805
USDC	-0.24%	42,412	48,664	31,557
BUSD	+13.33%	453	530	385
GUSD	-74.49%	320	706	25

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+16.69%	552	700	395
USDT_OMNI	-53.19%	1,199	5,002	10
USDT_TRX	-21.95%	133	167	112
PAX	+313.10%	2,994	5,974	966
DAI	-9.37%	1,622	2,482	965
USDC	+32.91%	927	1,349	500
BUSD	+28.83%	302	446	161
GUSD	+2,266.14%	793	1,999	34

VELOCITY

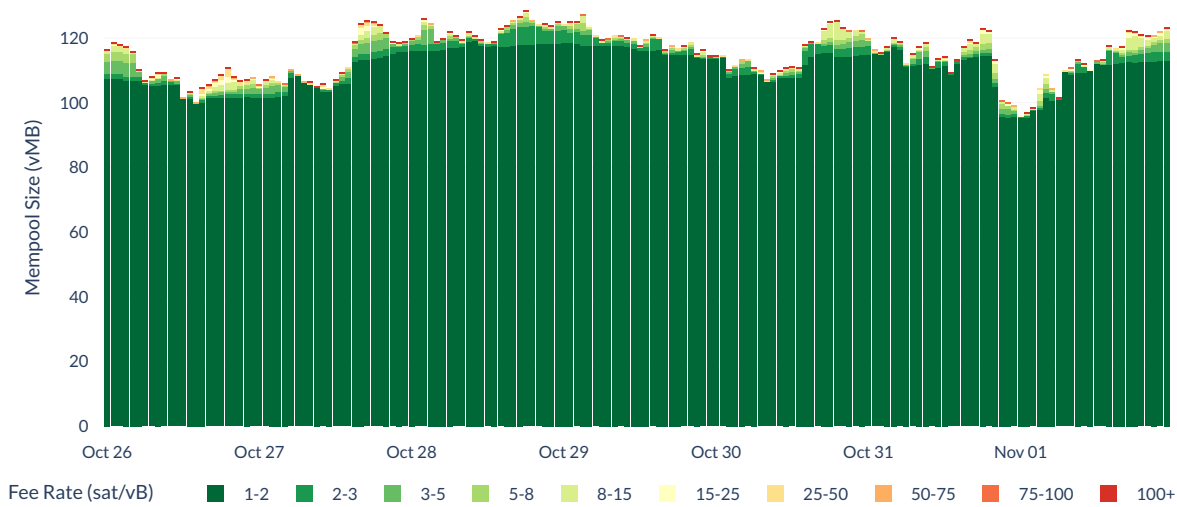
Number of times that an average native unit among the active supply has been transferred in the past 1 year

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.11%	38.91	38.95	38.87
USDT_OMNI	-5.75%	34.80	36.16	34.08
USDT_TRX	+0.72%	72.95	73.27	72.75
PAX	+10.42%	38.56	42.05	37.23
DAI	+3.30%	140.90	143.67	139.08
USDC	+0.18%	112.35	112.79	111.65
BUSD	+0.28%	70.59	71.28	69.89
GUSD	-8.36%	28.73	29.90	27.40

FEE MARKET

BTC MEMPOOL SIZE VS. FEE RATES
(2023-11-01)

COINMETRICS



COINMETRICS

BTC FEE TRENDS

AVG. USD FEE

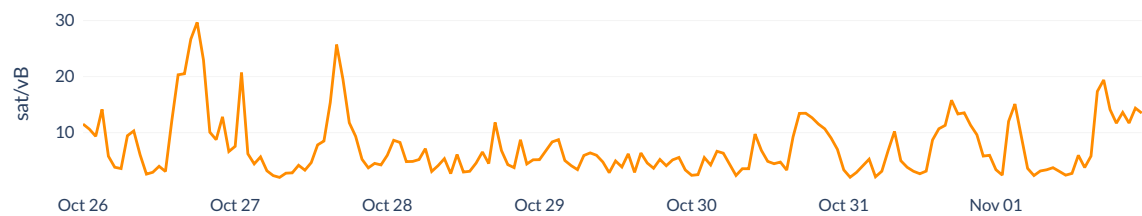
MED. USD FEE

AVG. FEE / BYTE

AVG. FEE / WEIGHT

BTC RECOMMENDED FEE RATE
(1H AVERAGE)

COINMETRICS



COINMETRICS
ETH FEE TRENDS

AVG. USD FEE

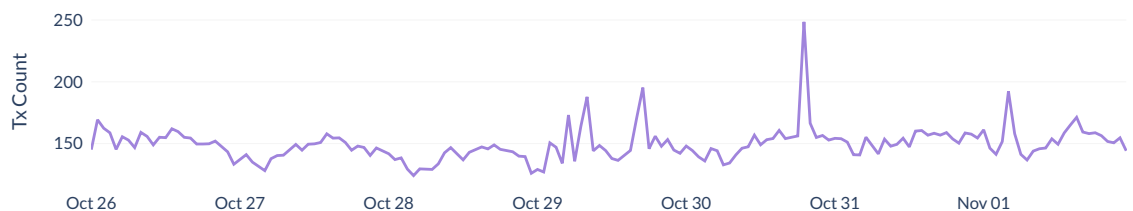
MED. USD FEE

DAILY GAS USED

AVG. GAS USE / TX

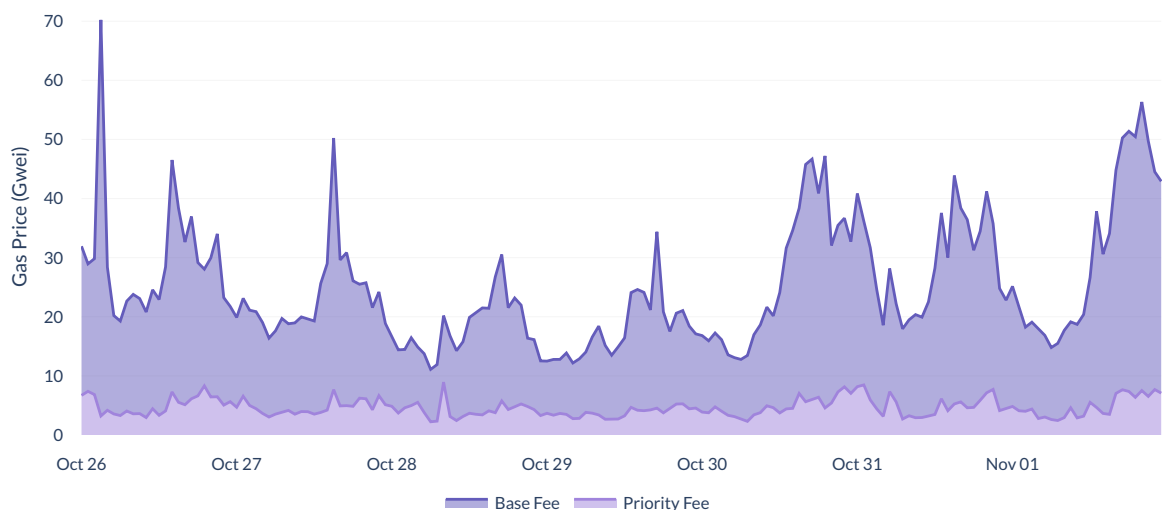
ETH TRANSACTION COUNT PER BLOCK
(1H AVERAGE)

COINMETRICS



ETH BASE & PRIORITY FEES
(1H AVERAGE)

COINMETRICS



NETWORK DATA FUNDAMENTALS

NVT RATIO (90D MA) 1Y (2023-11-01)



ACTIVE ADDRESSES

Count of unique addresses that were active in the network

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	-4.22%	1,039,411	1,099,370	909,920
ETH	+0.31%	442,141	451,832	430,137
XRP	+85.83%	28,389	43,335	21,531
LINK	-7.43%	3,885	4,494	3,233
ADA	+23.52%	37,696	44,151	32,415
CRO	+8.45%	338	398	279
LTC	-29.15%	236,739	315,758	204,906
BCH	-33.82%	87,122	240,383	28,320
UNI	+30.33%	930	1,259	732
FTT	-24.68%	110	154	83

FREE FLOAT SUPPLY

Sum of native units readily available to trade in open markets

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.11%	13,724,472	13,733,379	13,718,455
ETH	-0.04%	109,590,584	109,612,199	109,570,906
XRP	+0.10%	47,303,338,928	47,338,203,675	47,288,836,457
LINK	+0.00%	545,159,879	545,176,037	545,140,592
ADA	+0.20%	30,826,877,335	30,866,959,453	30,804,091,838
CRO	+4.21%	9,547,199,253	9,889,935,283	9,489,952,505
LTC	+0.01%	62,390,884	62,394,557	62,388,137
BCH	+0.03%	13,171,325	13,173,631	13,169,332
UNI	+2.75%	257,768,591	258,783,768	251,776,988
FTT	+0.00%	328,895,104	328,895,104	328,895,104

TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+7.48%	459,384	564,578	403,706
ETH	+0.88%	1,067,857	1,101,380	991,315
XRP	+1.24%	950,976	1,013,440	815,745
LINK	-6.37%	5,983	6,841	4,615
ADA	-4.71%	55,818	61,140	50,644
CRO	+7.54%	393	485	321
LTC	+1.09%	114,201	117,216	108,066
BCH	-47.99%	75,379	280,165	10,815
UNI	+65.81%	1,284	2,270	834
FTT	-23.86%	172	306	85

ADDRESSES ≥ \$1

Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.49%	41,438,360	41,572,437	41,347,614
ETH	+0.80%	61,417,008	61,877,022	61,125,546
XRP	+0.16%	4,838,574	4,842,672	4,834,875
LINK	+0.73%	543,075	545,415	541,482
ADA	+0.46%	3,591,285	3,600,596	3,583,861
CRO	+0.34%	151,073	151,358	150,849
LTC	+0.63%	2,369,261	2,380,253	2,358,033
BCH	-0.09%	4,614,123	4,622,460	4,591,984
UNI	+0.99%	288,144	290,358	287,410
FTT	+0.05%	22,013	22,044	21,975

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

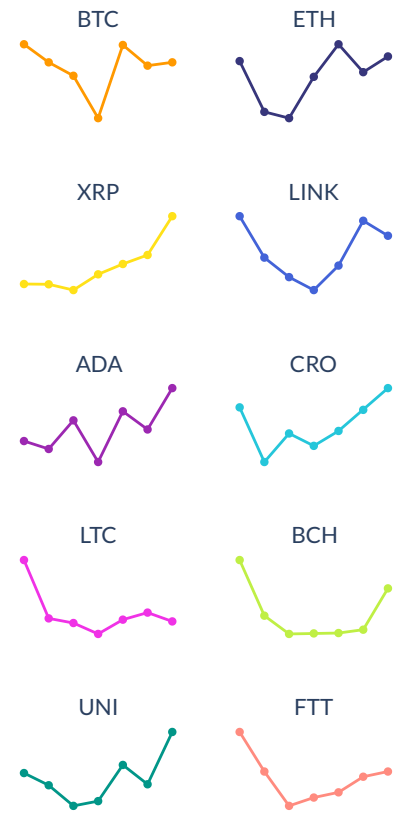
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+8.40%	4,609,580,050	6,080,321,566	2,885,502,717
ETH	+20.59%	2,781,571,080	3,972,855,435	1,554,589,076
XRP	+169.25%	626,258,455	1,517,463,778	133,353,589
LINK	+0.76%	177,016,260	325,348,185	87,255,730
ADA	-12.36%	5,186,051,498	5,793,023,960	4,784,030,123
CRO	+49.55%	13,534,239	39,078,654	643,386
LTC	-1.10%	85,301,969	100,590,027	59,840,922
BCH	-4.64%	33,063,878	50,095,675	22,432,030
UNI	+145.90%	34,418,728	66,472,523	13,515,555
FTT	+21.97%	2,510,824	4,473,739	580,417

ADDRESSES ≥ \$1M

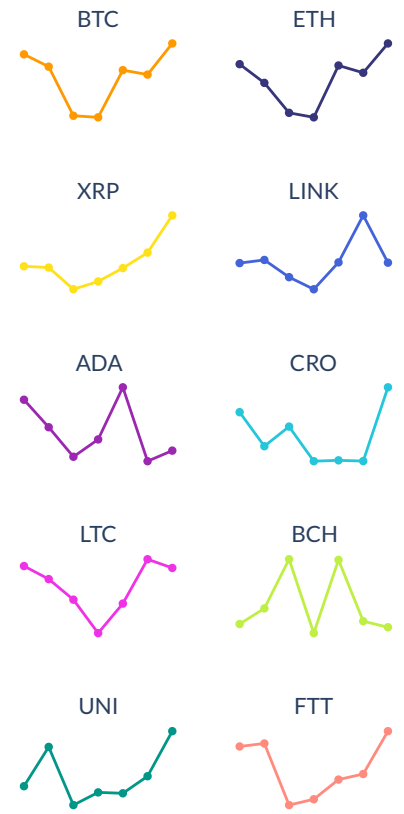
Count of addresses holding at least \$1M worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+1.54%	79,630	80,495	79,052
ETH	+1.78%	10,050	10,223	9,952
XRP	+6.92%	1,257	1,314	1,223
LINK	+2.43%	626	633	618
ADA	+3.36%	813	831	798
CRO	+9.09%	22	24	21
LTC	+1.32%	451	459	446
BCH	-1.88%	365	372	360
UNI	+3.72%	271	279	269
FTT	+6.67%	15	16	15

COINMETRICS ACTIVE ADDRESSES, 7 DAY TREND



COINMETRICS TRANSFER VALUE, 7 DAY TREND



DATA EXPLAINER (P.1)

ESTIMATED MARKET CAPITALIZATION (MARKET CAP)

Estimated Market Capitalization (Market Cap) is an asset's reported supply multiplied by its price. In this version of the metric, circulating supply is reported by the projects or other derived sources.

PRICE

Closing Price (4PM), High Price, Low Price, % Change in Price for each asset for the previous month and the previous 52-week period. Price represents Coin Metrics' Reference Rate, which is calculated using an independent methodology robust to manipulation. [More information](#) on Coin Metrics' Reference Rates.

DIGITAL ASSET TAXONOMY

Asset classes, sectors, and sub-sectors are derived from datonomy™, a digital asset classification system created by Coin Metrics, Goldman Sachs, and MSCI, offering a consistent, standardized way for investors to analyze the digital assets ecosystem.

Class is the top level of the classification system, describing the fundamental purpose of an asset.

Sector describes specialization of an asset within a class.

Sub-Sector delineates the asset within a sector by the specific product, service, or function it provides to users.

datonomy™ offers a new level of transparency into how the market is moving and serves as a powerful foundation for portfolio performance measurement, risk management, reporting, & investment strategy. [More info](#) on datonomy.

SECTOR INDEXES

The Total Market Series is a suite of indexes measuring segments of the digital assets ecosystem as defined by datonomy™, allowing investors to passively track the growth of sectors and sub-sectors. The full list of index offerings is outlined below:

- **CMBIAUE:** CMBI Application Utilities Sector Even
- **CMBIBUE:** CMBI Blockchain Utilities Sector Even
- **CMBIBSE:** CMBI Business Services Sector Even
- **CMBIDFIE:** CMBI Decentralized Finance Sector Even
- **CMBIITE:** CMBI Information Technology Sector Even
- **CMBIIFE:** CMBI Intermediated Finance Sector Even
- **CMBIMSE:** CMBI Media Services Sector Even
- **CMBIMTAE:** CMBI Metaverse Sector Even
- **CMBISCPE:** CMBI Smart Contracts Platform Sector Even
- **CMBISCE:** CMBI Specialized Coins Sector Even
- **CMBIVTCE:** CMBI Value Transfer Coins Sector Even
- **CMBIDEXE:** CMBI Decentralized Exchanges Sub-Sector Even
- **CMBINSE:** CMBI Network Scaling Sub-Sector Even
- **CMBINFTE:** CMBI NFT Ecosystem Sub-Sector Even

CMBI SINGLE ASSET SERIES

The CMBI Single Asset Series provide the cryptoasset community, investors and asset managers with publicly available and investable benchmarks that reliably and accurately track the price of a single cryptoasset, through sourcing market prices from numerous global liquidity venues. [More information](#) on Coin Metrics Indexes.

CMBI BITCOIN

Daily level for Coin Metrics Bletchley Index (CMBI) Bitcoin for the previous month. CMBI Bitcoin tracks the price and performance of Bitcoin by sourcing BTC/USD market prices from numerous global liquidity venues. As of 10/29/2023 constituent markets in the CMBI Bitcoin were Binance.US, Bitstamp, Bittrex, Coinbase, Gemini, itBit and Kraken. [More information](#) on Coin Metrics Indexes.

CMBI ETHEREUM

Daily level for CMBI Ethereum for the previous month. CMBI Ethereum tracks the price of Ethereum by sourcing ETH/USD market prices from numerous global liquidity venues. As of 10/29/2023 constituent markets in the CMBI Ethereum were Binance.US, Bitstamp, Bittrex, Coinbase, Gemini, itBit and Kraken. [More information](#) on Coin Metrics Indexes.

CMBI MULTI ASSET SERIES

The CMBI Multi Asset Series provide the cryptoasset community, investors and asset managers with publicly available and investable benchmarks that reliably and accurately track the value of cryptoasset markets. [More information](#) on Coin Metrics Indexes.

CMBI 10

Daily level for CMBI 10 for the previous month. The CMBI 10 is designed to measure the performance an investor would expect from investing in a diversified basket of cryptoassets weighted by their free float market capitalization. The 10 largest cryptoassets, defined by an asset's expected 10 year future market capitalization, are selected as the index constituents. [More information](#) on Coin Metrics Indexes.

CMBI 10 MOMENTUM

Daily level for CMBI 10 Momentum for the previous month. The CMBI 10 Momentum is designed to measure the performance of a short term momentum factor applied to a basket of the 10 largest cryptoassets. The 10 largest cryptoassets, defined by an asset's expected 10 year future market capitalization, are selected as the index constituents. [More information](#) on Coin Metrics Indexes.

DATA EXPLAINER (P.2)

TRADING DIARY

Total Volume, which is the total traded volume for the previous week for the cryptoassets under Coin Metrics Reference Rate Coverage.

Adv. Volume is the total traded volume for the previous week for all cryptoassets under Coin Metrics Reference Rate Coverage that had closing prices higher than their opening prices for the week.

Decl. Volume is the total traded volume for the previous week for all cryptoassets under Coin Metrics Reference Rate Coverage that had closing prices lower than their opening prices for the week.

Advances are the number of cryptoassets that had closing prices higher than their opening price for the week.

Declines are the number of cryptoassets that had closing prices lower than their opening price for the week.

The ratio of advances to declines can be used to determine the breadth of market direction. For example, higher advance/decline ratios indicate that advancing market direction is driven by a broader set of cryptoassets.

EXCHANGE SPOT VOLUME MARKET SHARE

Market share of exchange spot volume for the previous week for the Markets covered by Coin Metrics.

BASE ASSET SPOT VOLUME MARKET SHARE

Market share of base asset volume for the previous week for the top 25 cryptoassets based on volume under Coin Metrics Reference Rate Coverage.

LIQUIDATIONS

Exchanges which offer futures products have a liquidation system that will attempt to close a market participant's position before the point at which the market participant begins to owe more than the available amount of collateral in their account. If a short trade enters liquidation, the exchange will enter a 'buy' order to forcibly close out the position. Vice versa, if a long trade enters liquidation, the exchange will enter a 'sell' order to forcibly close out the position.

% PRICE CHANGE

Percentage change in price over the previous week for cryptoasset gainers and losers in Coin Metrics' Reference Rate and Market Cap coverage universe. Coin Metrics' price/Reference Rate is calculated using an independent methodology robust to manipulation. [More information](#) on Coin Metrics' Reference Rates.

REPORTED EXCHANGE VOLUME

Our exchange reported volume metric is an aggregation of the daily reported volume from an exchange in units of U.S. dollars.

SPOT VOLUME SHARE, % BY ASSET

Exchange spot volume asset share is derived using Coin Metrics market candles. Candles include volume and volume-weighted average price, as well as open, high, low, and close values for each market. Candles are available at various intervals, from 1-minute to 1-day frequency. Candle USD volume is calculated by aggregating the total volume of trades for each base pair in a given window and multiplying by the asset's Coin Metrics Reference Rate.

ORDER BOOK DEPTH

Order book depth (+/-2%) is calculated using Coin Metrics order book snapshots. Coin Metrics stores three types of order book snapshots. One type consists of a snapshot of the top 100 bids and top 100 asks taken once every 10 seconds for major markets. The 2nd type includes all levels where the price is within 10 percent of the midprice taken once every 10 seconds for major markets. The 3rd type consists of a full order book snapshot (every bid and every ask) taken once every hour for all markets that we are collecting order book data for.

DEX REPORTED SPOT VOLUME

Decentralized exchange spot volume is calculated by aggregating the total amount of USD trading volume occurring in major DEX liquidity pools. The subset of liquidity pools where both the base and the quote asset have a Coin Metrics Reference Rate are included.

DEX RISING VOLUME

Decentralized exchange rising volume is calculated by aggregating the total amount of USD trading volume occurring in major DEX liquidity pools and selecting the pools with the largest week-over-week rise in volume. The subset of liquidity pools where both the base and the quote asset have a Coin Metrics Reference Rate are included.

DEX FALLING VOLUME

Decentralized exchange falling volume is calculated by aggregating the total amount of USD trading volume occurring in major DEX liquidity pools and selecting the pools with the largest week-over-week decline in volume. The subset of liquidity pools where both the base and the quote asset have a Coin Metrics Reference Rate are included.

DATA EXPLAINER (P.3)

DEX VOLUME BY FEE TIER

Decentralized exchange volume by fee tier is calculated by aggregating the total amount of swap USD volume that occurred in each liquidity pool, segmented by the different fee tiers of pools available for each pair. Revenue by fee tier is calculated by multiplying the amount of USD volume by the fee tier of the liquidity pool in which the volume occurred. [More information](#) on Coin Metrics DeFi data.

DEX TOTAL VALUE LOCKED (TVL)

Decentralized exchange total value locked is derived by calculating the amount of tokens held in all DEX liquidity pools covered by Coin Metrics. Balance held by each liquidity pool smart contract is retrieved using ATLAS, Coin Metrics' universal blockchain search engine. [More information](#) on Coin Metrics ATLAS.

FUTURES OPEN INTEREST

The reported futures open interest from markets in Coin Metrics' coverage in units of U.S. dollars, aggregated across all futures markets for a particular asset. Covered markets can be found in the Coin Metrics [Data Encyclopedia](#).

FUTURES BASIS

The futures basis is the percent difference between the price of a dated futures contract and the price of its underlying spot market, calculated using the Coin Metrics Reference Rate. In addition to calculating futures basis manually, Coin Metrics also offers annualized [futures basis metrics](#) at the exchange-asset level.

FUTURES VOLUME

The reported futures volume from the markets in Coin Metrics' coverage in units of U.S. dollars, aggregated across all futures markets for a particular asset. Covered markets can be found in the Coin Metrics [Data Encyclopedia](#).

FUNDING RATES

Funding rates are a mechanism that exchanges use to ensure that perpetual futures trade at a price that is close to the price of the underlying spot markets. The funding rate is used to calculate the funding fee which long position holders pay short position holders, or vice versa, as a way to incentivize market participants to take positions that keep perpetual futures prices close to the underlying.

Positive funding rates indicate that the price of a perp contract is higher than mark price, forcing traders with long positions to pay those holding shorts. Inversely, negative funding rates mean that perp prices are below mark price, so those with shorts must pay the longs. Some analysts have noted that persistently positive funding rates tend to precede a downturn, while persistently negative rates can lead to short squeezes.

PERP & NON-PERP OPEN INTEREST

The reported futures open interest from markets in Coin Metrics' coverage in units of U.S. dollars, aggregated across all futures markets for a particular asset and segmented by contract type (perpetual and non-perpetual futures).

A perpetual ("perp") contract is a special type of futures contract, which is an agreement to buy or sell a cryptoassets at a predetermined price at a specified time in the future. Perpetuals do not have an expiry date, so one can hold the position for as long as desired.

OPTIONS OPEN INTEREST

The reported options open interest from markets in Coin Metrics' coverage in units of U.S. dollars. Currently, the open interest displayed is collected from Deribit, the largest crypto options exchange. Open interest is broken down into calls (long positions) and puts (short positions) to highlight prevailing investor sentiment.

OPTIONS IMPLIED VOLATILITY VS. STRIKE PRICE (VOLATILITY SMILE)

Implied volatility represents the market's expectation of future volatility as derived from options prices, calculated using an options pricing model. When this value is input to an options pricing model, that makes the actual options price equal to its theoretical price.

The options implied volatility (IV) vs. strike price visualization (also known as a "volatility smile") is generated by plotting the IV of each options contract with a common expiration date against the corresponding strike prices of each contract. This representation underscores the fact that out-of-the-money (OTM) options must factor in a higher likelihood of extreme, market-moving events when compared to in-the-money (ITM) options, warranting a higher premium to be paid for the IV component of that contract.

OPTIONS GREEKS

Option greeks represent the sensitivity of the price of an options contract with respect to changes in its underlying parameters. Greeks are used in risk management & hedging so that market participants can achieve their desired exposure. Exchanges report the following greeks:

- **Vega:** The 1st derivative of an option's price to the volatility of the underlying asset's price.
- **Theta:** The 1st derivative of an option's price to the passage of time.
- **Rho:** The 1st derivative of an option's price to the risk free interest rate.
- **Delta:** The 1st derivative of an option's price to the underlying asset's price.
- **Gamma:** The 2nd derivative of an option's price to the underlying asset's price.

DATA EXPLAINER (P.4)

MARKET CAPITALIZATION (MARKET CAP)

Market Capitalization (Market Cap) is an asset's on-chain supply (Coin Metrics' Current Supply) multiplied by its price. Current supply is the sum of all native units ever created (i.e., issued) and visible on the ledger.

Market cap is the most commonly used measure of a cryptoasset's total market value. However, market cap can be misleading because it treats each unit of supply equally. Unlike with traditional equities, significant amounts of cryptoassets are permanently lost or go unclaimed, yet are still counted as part of the on-chain supply.

FREE FLOAT MARKET CAP

The sum USD value of the free float supply. Also referred to as free float network value or free float market capitalization.

Free Float Market Capitalization is a measure of the market value of an asset's supply that is issued and available to market participants. This excludes supply that is held by company insiders, controlling investors, and long term strategic holders. Free Float Supply also excludes large token burn wallets and funds that have been provably lost.

REALIZED CAP

Realized cap is calculated by valuing each unit of supply at the price it last moved on-chain (i.e. the last time it was transacted). For example if a coin was last transacted three years ago when the price was \$2,500, that particular coin would be priced at \$2,500 instead of the current market price. The realized cap is the total sum of all coins priced this way.

Realized cap provides a more realistic representation of market cap and discounts coins that are lost or out of circulation.

MARKET TO REALIZED VALUE (MVRV)

MVRV is the ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

It can be used to help gauge cryptoasset market tops and bottoms. Historically, periods where Bitcoin's MVRV has dropped below 1.0 have coincided with market bottoms and in hindsight have been the best times to buy.

TOTAL STABLECOIN SUPPLY

Total Stablecoin Supply based on Coin Metrics' Current Supply, which reflects all native units ever created and visible on the ledger (i.e., issued). Tether supply includes Tether Omni, Tether ETH, and Tether Tron. Other Stablecoins include PAX, DAI, USDC, BUSD, GUSD, HUSD, TUSD, and SAI.

TETHER PREMIUM/DISCOUNT TO USD

30-day moving average of Tether's price YTD premium or discount to USD. Price represents Coin Metrics' Reference Rate, which is calculated using an independent methodology robust to manipulation. [More information](#) on Coin Metrics' Reference Rates.

MARKET CAPITALIZATION

See prior explanation.

TRANSFER VALUE, ADJUSTED

Transfer value is the total amount of a cryptoasset transferred over the course of a day, denominated in USD. We adjust raw transfer value to remove noisy "non-economic" behavior such as self-sends and spam.

TRANSACTION COUNT

Transaction count is the measure of the number of transactions either sent or received on a daily basis. Similar to active addresses it is a measure of network activity but it is susceptible to some spam and other types of manipulation.

MEDIAN TRANSFER VALUE

The median USD value transferred per transfer (i.e., the median "size" in USD of a transfer) between distinct addresses.

VELOCITY

The ratio of the value transferred (i.e., the aggregate "size" of all transfers) in the trailing 1 year divided by active supply in the trailing 1 year.

Velocity can be thought of as the rate of turnover— the number of times that an average native unit among the active supply has been transferred in the past 1 year.

DATA EXPLAINER (P.5)

MEMPOOL SIZE VS. FEE RATES

Coin Metrics' Mempool Monitor provides a full breakdown of what other network participants are willing to pay to have their transactions settled, thereby enabling precise fee estimation and settlement prediction. The chart showcases all feerate levels that have corresponding transactions in the mempool. For each feerate level, the total number of mempool transactions, as well as their size (in virtual bytes), are monitored.

BTC RECOMMENDED FEE RATE

The recommended minimum feerate required for a transaction to be included in the upcoming blockchain block. This metric accounts for situations where there are many transactions paying the minimum feerate by adding an additional cushion to the minimum estimate, providing better settlement guarantees.

BTC FEE TRENDS

The USD value of the mean and median fee per transaction that interval. Average fees per unit of blockspace (bytes and virtual bytes) are also calculated.

TRANSACTION COUNT PER BLOCK

The count of all transactions within the most recent block processed.

ETH GAS PRICES

The most recent block we processed within a 1-minute window is evaluated and its Base Fee and Priority Fees are captured. The concept of a Base Fee was introduced as part of EIP-1559 and it represents the portion of the total transaction fees that is destroyed and taken out of circulation (i.e. burnt). Ethereum post-1559 requires users to pay for a Base Fee as a prerequisite to include transactions in a block. The Base Fee can go up or down on the basis of the size (in gas units) of the previous block. The concept of a Priority Fee was introduced as part of EIP-1559 and it represents the portion of the total transaction fees that rewards validators. This serves as an added incentive so that validators prioritize transactions that have opted-in and paid a tip.

ETH FEE TRENDS

The USD value of the mean and median fee per transaction that interval. The sum gas used (i.e. paid) across all transactions and mean gas used (i.e. paid) per transaction that day are also captured.

NVT RATIO

The ratio of the network value (or market capitalization) to the 90-day moving average of the adjusted transfer value.

NVT uses native units network value and adjusted transaction volume. It is therefore available at the asset's genesis, unlike if it was using USD values. It can be thought of as a rough P/E (price to earnings) ratio proxy for crypto assets.

ACTIVE ADDRESSES

Active addresses is the unique number of addresses that either send or receive a transaction, calculated daily.

This metric can serve as a rough proxy for daily active users. However, it's not exact— a single user can have many addresses, and a single addresses can be owned by many users.

FREE FLOAT SUPPLY

Coin Metrics' free float supply takes many of the best practices from traditional capital markets and applies them to cryptoassets to identify supply that is highly unlikely to be available to the market in the short to mid-term. In doing so, free float supply provides a better approximation of a cryptoasset's liquidity and market capitalization compared to standard supply measurements. [More information](#) on Coin Metrics Free Float Supply.

TRANSACTION COUNT

See prior explanation.

TRANSFER VALUE, ADJUSTED

See prior explanation.

ADDRESSES WITH \geq \$1

The count of addresses that hold at least \$1 worth of a cryptoasset. This gives a rough estimation of the amount of users that hold an asset, with the same caveats that apply for active addresses.

ADDRESSES WITH \geq \$1M

The count of addresses that hold at least \$1M worth of a cryptoasset. This gives a rough estimation of the amount of institutional investors that hold an asset, with the same caveats that apply for active addresses.