

STATE OF THE MARKET

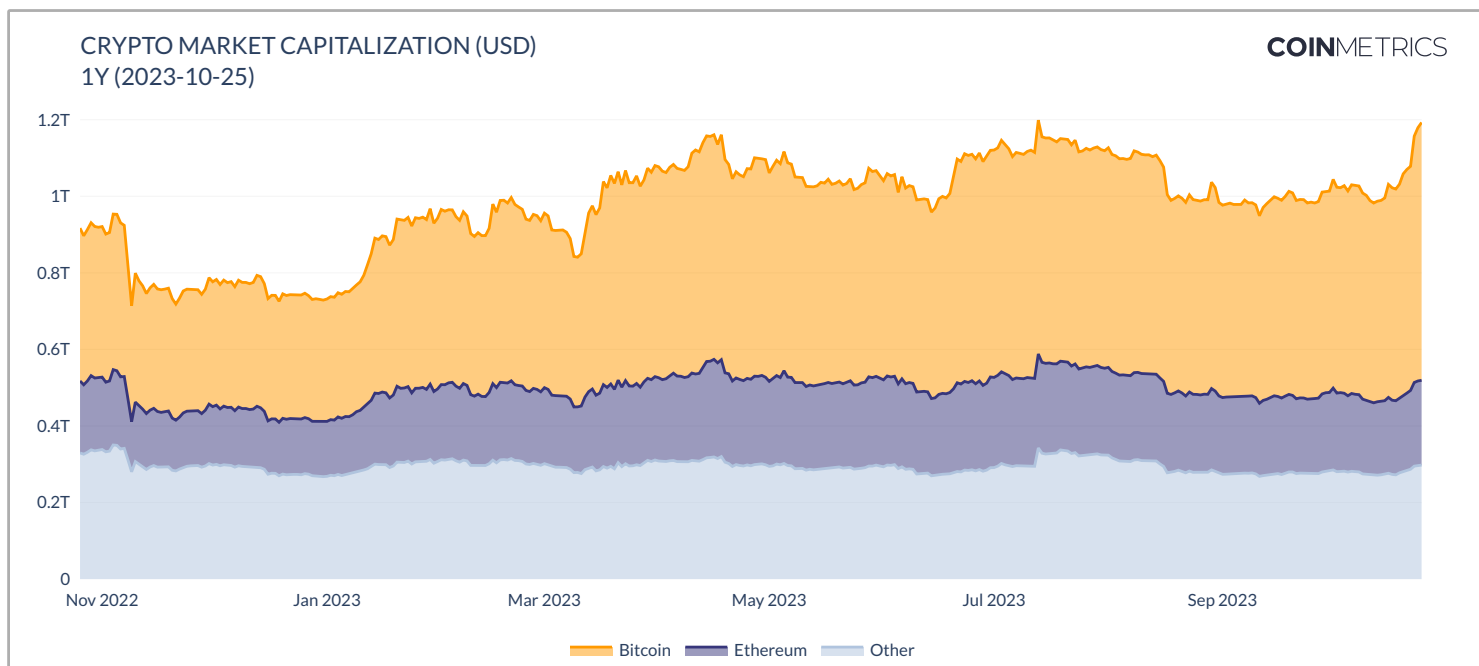
OCT. 19 - 25, 2023

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

CM

MARKET SUMMARY

The fabled Bitcoin ETF remains relegated to the SEC backlog, but impatient investors are itching to price it in as a foregone conclusion. On Monday, market analysts called attention to the Depository Trust and Clearing Corporation (DTCC) website, where the iShares Bitcoin Trust (IBTC) appeared to be preemptively listed. Many assumed this listing implied imminent approval of the IBTC ETF, fueling a frenzied rally in Bitcoin price, from \$30K to \$35K. Though a DTCC spokesperson later clarified that adding securities to their "eligibility file" was standard practice (and that the listing was added in August), optimism around ETF approval persists. BTC has held its gains through the remainder of the week, with hundreds of millions in short liquidations adding an ongoing source of buy pressure. Meanwhile, Bitcoin's Lightning Network is sending mixed messages. On Monday, LightSpark's David Marcus (formerly of PayPal & Libra/Diem) announced his Lightning-focused payments firm was open-sourcing a new 'Universal Money Address' (UMA) standard. Marcus purports UMA will make global payments as "easy as sending an email," combining existing LNURL protocols with compliance tech to standardize a Lightning address format (i.e. \$you@domain.com). Despite Lightning's leap forward on the business front, a newly discovered vulnerability threatens to disrupt the flow of funds across the Layer-2 network. In a report titled 'Replacement Cycling Attacks on the Lightning Network,' developer Antoine Riard stated that sophisticated actors could execute "transaction-relay jamming" attacks, exploiting Hash Time Locked Contracts (HTLCs) to block honest nodes from closing channels. Riard notes that there's no evidence the attack has been executed in the past 10 mos., but claims a long-term fix can only be achieved at Bitcoin's base layer, requiring substantial community buy-in. On Wednesday, blockchain forensics firm Elliptic affirmed that there was "no evidence" to support claims that terrorist organization Hamas had raised "significant volumes" of crypto donations. The statement is, in part, a response to an early-October article from the Wall Street Journal, where reporters cited Elliptic data to posit that Palestinian terror groups had raised "over \$130 million in crypto." The faulty stat was also cited in a letter by Sen. Elizabeth Warren (signed by 100+ other lawmakers), urging the Biden administration to take "strong action" in curbing illicit uses of cryptocurrency. Elliptic claims their data was "misinterpreted," as Hamas-linked wallets have received "only \$21,000 in cryptocurrency" since Oct. 7th, with the majority frozen by stablecoin issuers & other crypto businesses. Following the loss of \$200M+ in user funds in the implosion of Hong Kong-based exchange JPEX, regional regulators are taking meaningful steps to mitigate crypto risks. The local Securities and Futures Commission published new guidelines on Friday, tightening investors requirements around products deemed "too complex" for retail investors, including certain futures contracts and exchange-traded funds. While digital assets are seeing increasing acceptance as an institutional asset class, regulators continue to thin the herd of eligible investors, calling crypto's contrasting aims of legitimization and democratization into question.



PRICE (CMBI CONSTITUENTS)

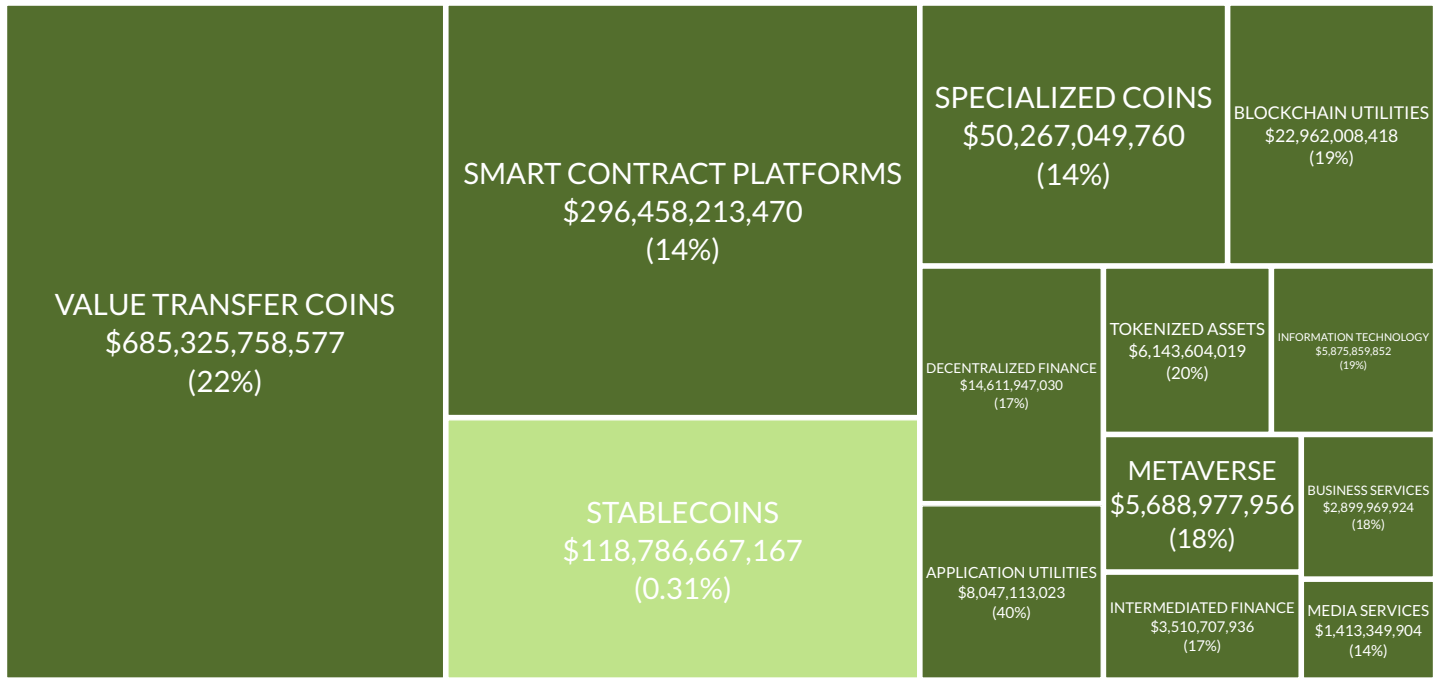
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
BTC	\$34,659.64	+20.58%	\$34,659.64	\$28,745.16	+67.89%	\$34,659.64	\$15,799.60
ETH	\$1,788.79	+14.08%	\$1,788.79	\$1,568.08	+14.45%	\$2,129.88	\$1,103.83
SOL	\$32.76	+30.05%	\$32.76	\$25.19	+4.00%	\$36.57	\$8.35
ADA	\$0.28	+14.60%	\$0.28	\$0.24	-30.29%	\$0.45	\$0.24
DOGE	\$0.07	+15.70%	\$0.07	\$0.06	-18.44%	\$0.14	\$0.06
TRX	\$0.09	+4.57%	\$0.09	\$0.09	+47.19%	\$0.09	\$0.05
BNB	\$223.28	+5.95%	\$225.53	\$210.74	-22.70%	\$353.50	\$204.88
AVAX	\$10.45	+15.37%	\$10.45	\$9.06	-39.81%	\$22.04	\$8.82
LINK	\$11.17	+51.78%	\$11.17	\$7.36	+56.93%	\$11.17	\$5.09
XLM	\$0.11	+9.71%	\$0.11	\$0.10	+0.60%	\$0.17	\$0.07
CMBI10	\$3,365.44	+18.10%	\$3,365.44	\$2,849.54	+36.21%	\$3,398.54	\$1,838.40

ASSET CLASSES

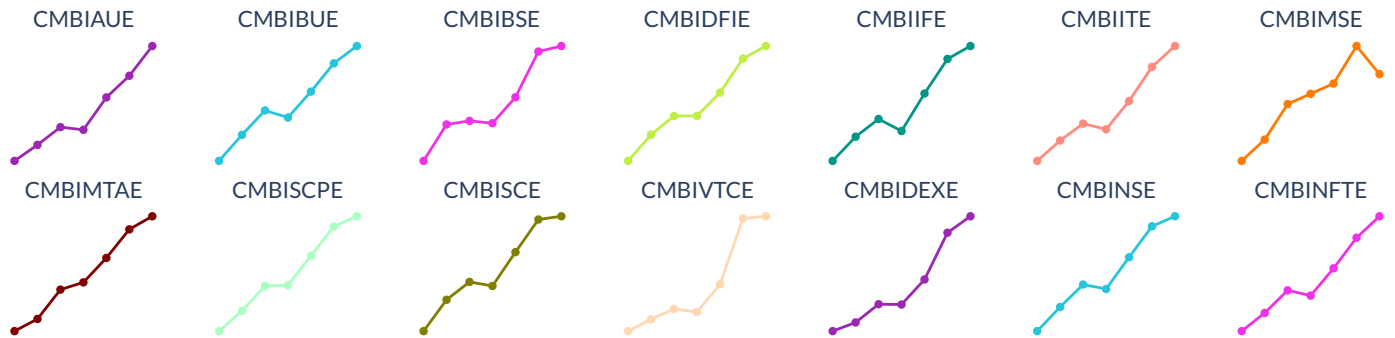
DIGITAL ASSET SECTOR 7D MARKETCAP (2023-10-25)

COINMETRICS



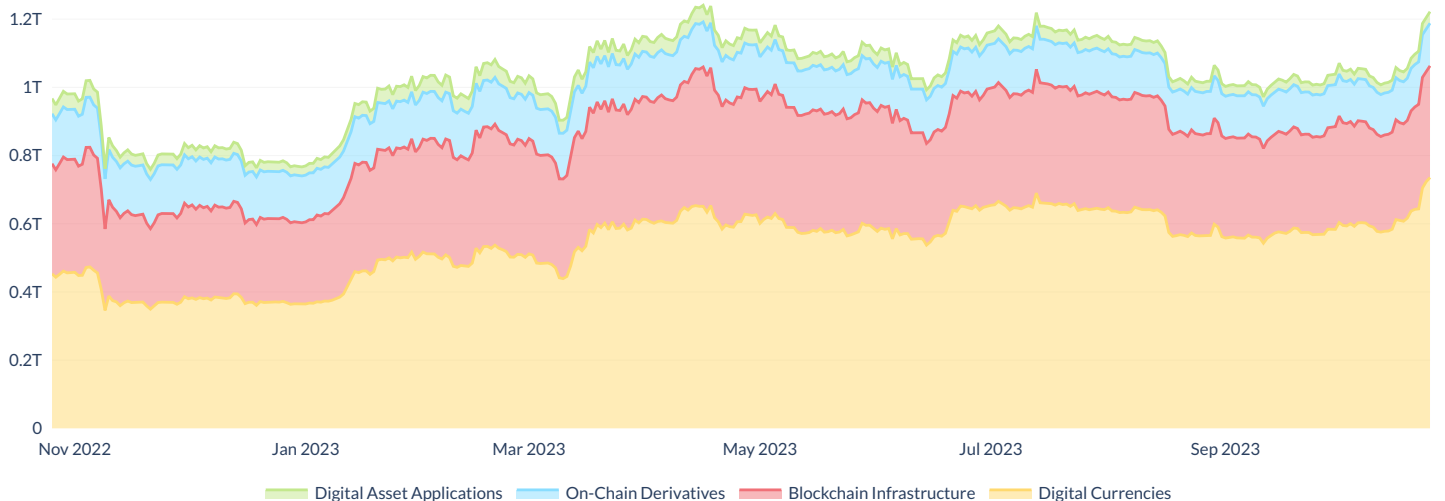
TRENDING SECTOR INDEXES, 7 DAY TREND

COINMETRICS



CRYPTO MARKET CAPITALIZATION (USD)
BY DATONOMY CLASS

COINMETRICS

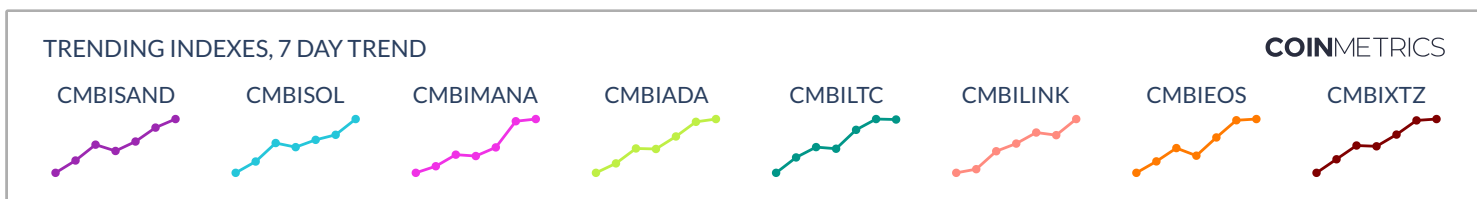
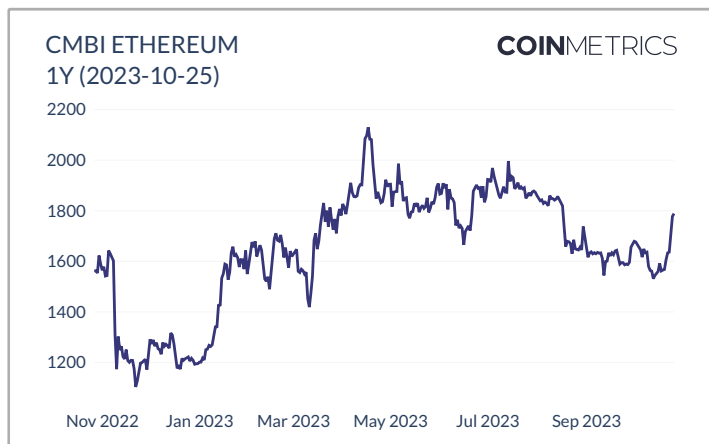
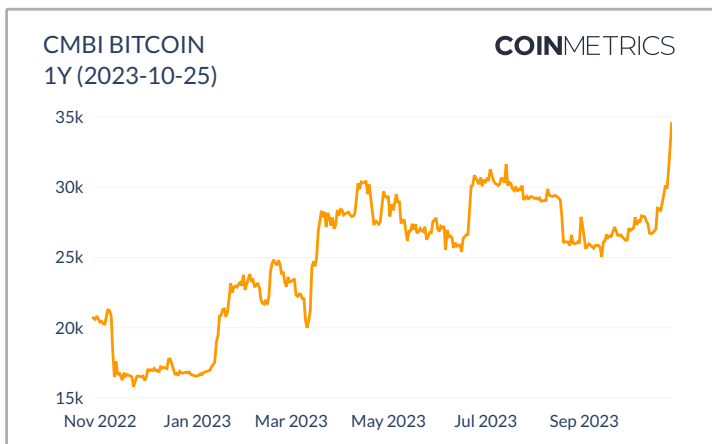


INDEX ROUNDUP

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	\$34,659.64	+20.58%	\$34,659.64	\$28,745.16	+67.89%	\$34,659.64	\$15,799.60
CMBIBTCT	\$37,237.91	+20.58%	\$37,237.91	\$30,883.46	+67.89%	\$37,237.91	\$16,974.91
CMBIETH	\$1,788.79	+14.08%	\$1,788.79	\$1,568.08	+14.46%	\$2,129.88	\$1,103.83
CMBIETHHT	\$1,941.89	+14.08%	\$1,941.89	\$1,702.29	+14.46%	\$2,312.19	\$1,198.31



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	\$3,365.44	+18.10%	\$3,365.44	\$2,849.54	+36.21%	\$3,398.54	\$1,838.40
CMBI10E	\$4,695.82	+18.36%	\$4,695.82	\$3,967.44	-13.25%	\$6,420.90	\$3,409.70
CMBI10EX	\$6,436.17	+14.04%	\$6,436.17	\$5,643.92	+1.49%	\$7,991.44	\$4,562.49
CMBI10M	\$10,313.92	+3.44%	\$10,313.92	\$9,969.86	-17.11%	\$13,044.36	\$9,310.27
CMBIBE	\$16,593.13	+18.45%	\$16,593.13	\$14,008.68	+47.06%	\$16,593.13	\$8,387.96

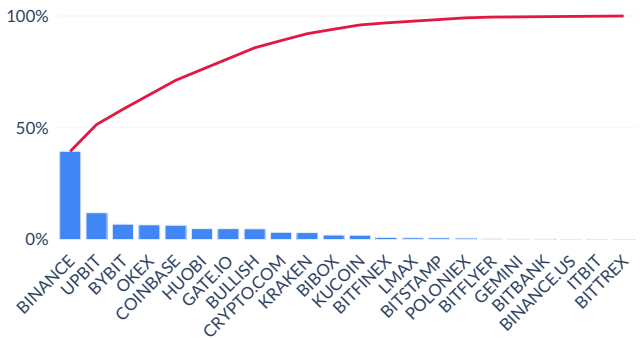


MARKET MOVEMENT

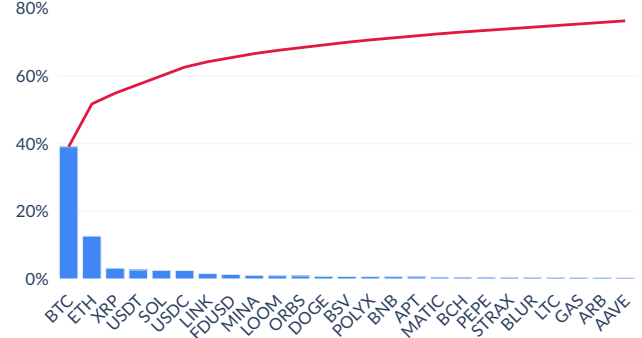
TRADING DIARY, 7 DAY

ADVANCING VOLUME	\$154,216,481,250
DECLINING VOLUME	\$16,624,036,490
ADVANCES	594
DECLINES	128

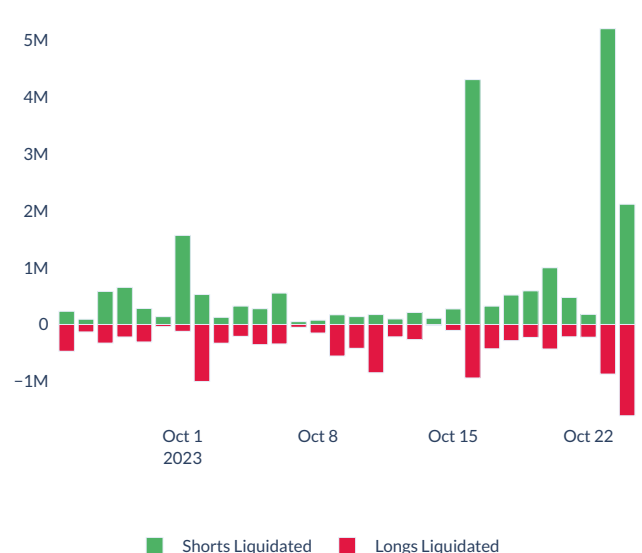
EXCHANGE SPOT SHARE, 7 DAY MEAN



BASE ASSET SPOT SHARE, 7 DAY MEAN

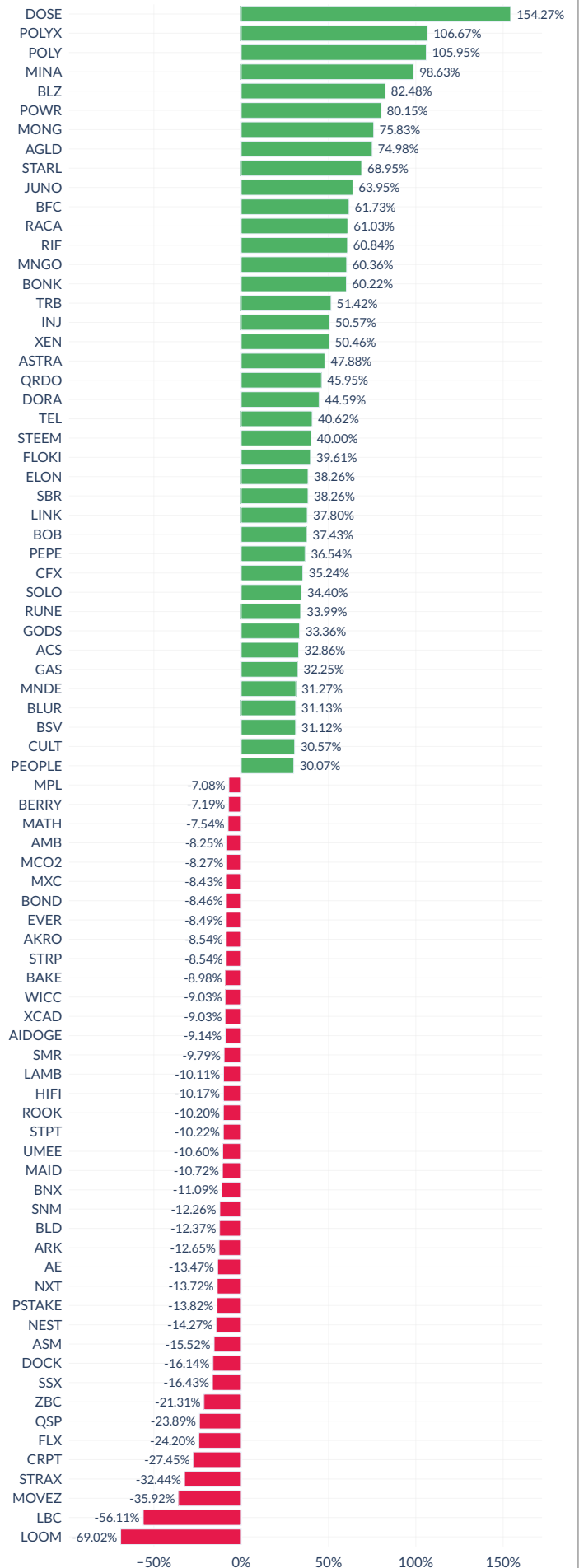


BTC PERPETUALS, TOTAL LIQUIDATIONS

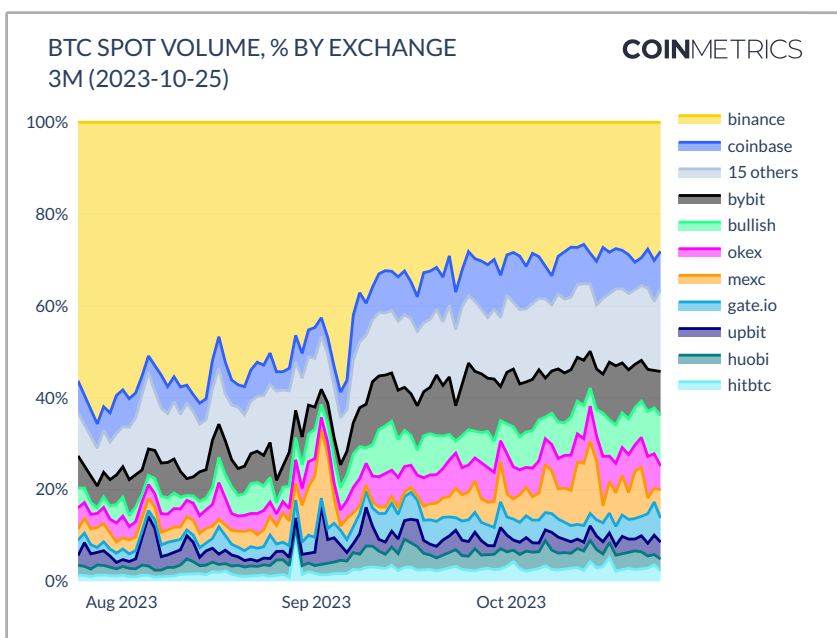
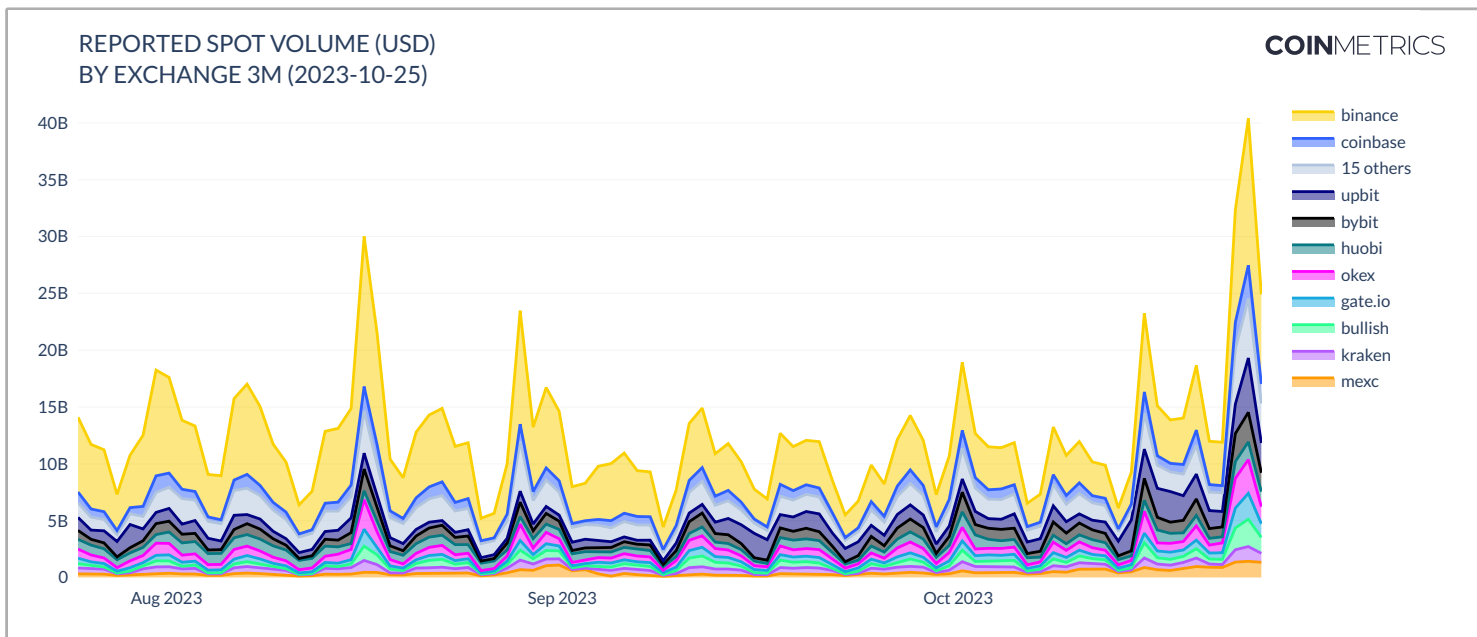


PRICE CHANGE, 7 DAY

COINMETRICS



AGGREGATE VOLUME



BTC SPOT VOLUME LEADERS

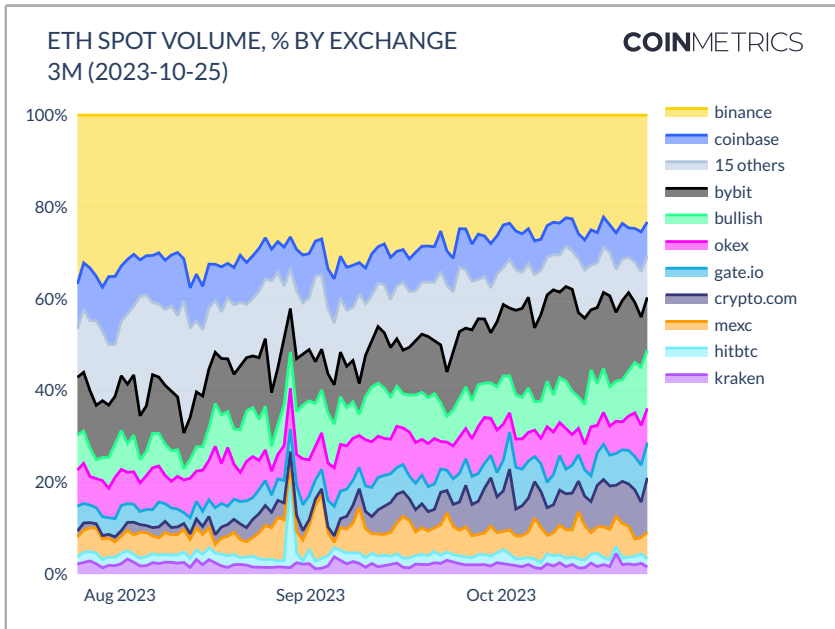
Top 10 exchanges by Bitcoin (BTC) spot volume reported over past 3 months.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	+85.41%	2,398,079,016	4,935,041,747	951,322,332
COINBASE	+81.28%	688,049,880	1,466,959,451	194,294,569
BYBIT	+62.33%	771,780,206	1,338,012,737	286,058,529
BULLISH	+168.00%	779,347,576	1,639,377,390	255,454,184
OKEX	+57.11%	610,446,109	1,250,601,616	205,892,839
MEXC	+31.57%	439,479,018	535,352,414	343,912,804
GATE.IO	+106.88%	482,940,062	1,185,199,996	136,313,615
UPBIT	+81.01%	285,211,771	691,230,794	93,476,160
HUOBI	+35.99%	235,232,902	365,114,872	120,766,924
HITBTC	+63.92%	245,528,775	598,691,990	86,839,251

ETH SPOT VOLUME LEADERS

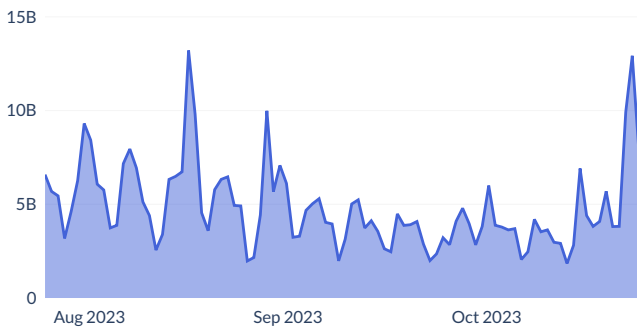
Top 10 exchanges by Ethereum (ETH) spot volume reported over past 3 months.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	+81.79%	801,729,390	1,581,243,118	359,279,301
COINBASE	+138.39%	247,434,648	540,780,289	107,528,976
BYBIT	+8.21%	442,387,033	701,450,922	263,155,853
BULLISH	+178.05%	360,387,283	791,529,046	139,607,157
OKEX	+121.80%	261,653,502	537,766,015	92,703,276
GATE.IO	+113.38%	242,143,778	501,625,440	104,700,468
CRYPTO.COM	+135.15%	303,125,569	573,597,036	139,658,080
MEXC	+66.80%	164,487,099	219,980,737	114,972,605
HITBTC	+111.42%	57,551,746	129,843,836	21,867,768
KRAKEN	+78.21%	75,722,232	147,430,217	30,841,971

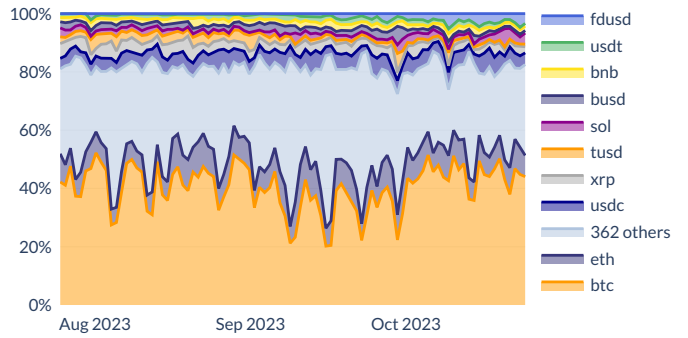


EXCHANGE SPOT VOLUME

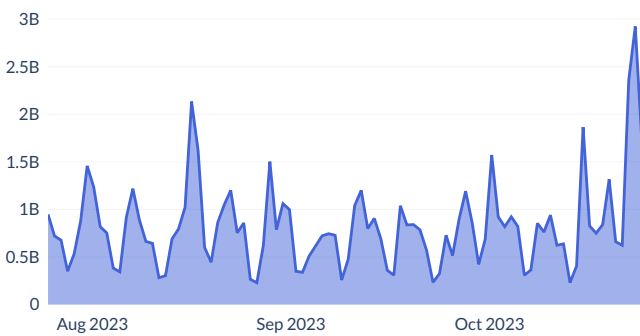
BINANCE DAILY USD SPOT VOLUME 3M (2023-10-25) COINMETRICS



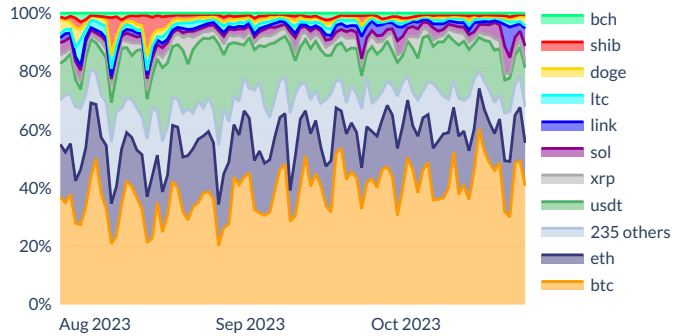
BINANCE SPOT VOLUME, % BY ASSET 3M (2023-10-25) COINMETRICS



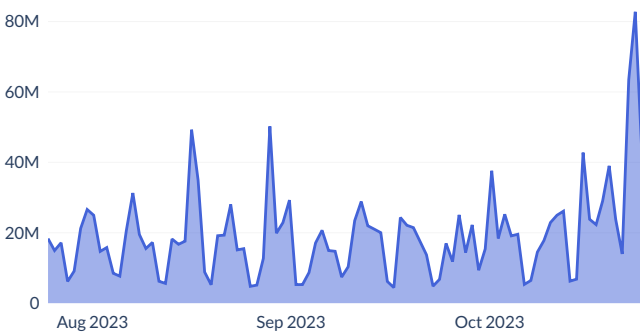
COINBASE DAILY USD SPOT VOLUME 3M (2023-10-25) COINMETRICS



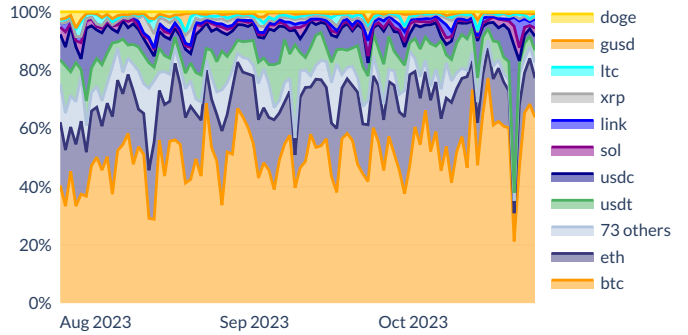
COINBASE SPOT VOLUME, % BY ASSET 3M (2023-10-25) COINMETRICS



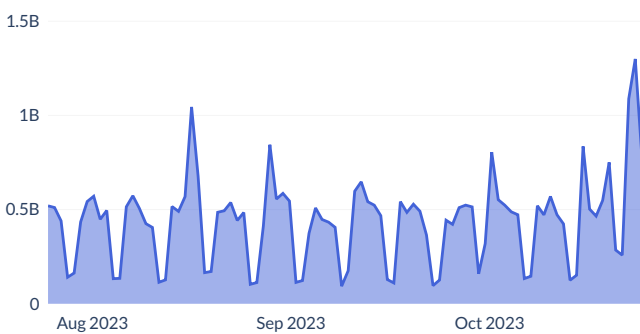
GEMINI DAILY USD SPOT VOLUME 3M (2023-10-25) COINMETRICS



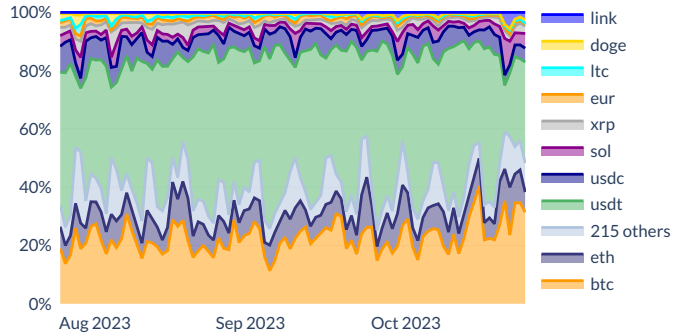
GEMINI SPOT VOLUME, % BY ASSET 3M (2023-10-25) COINMETRICS



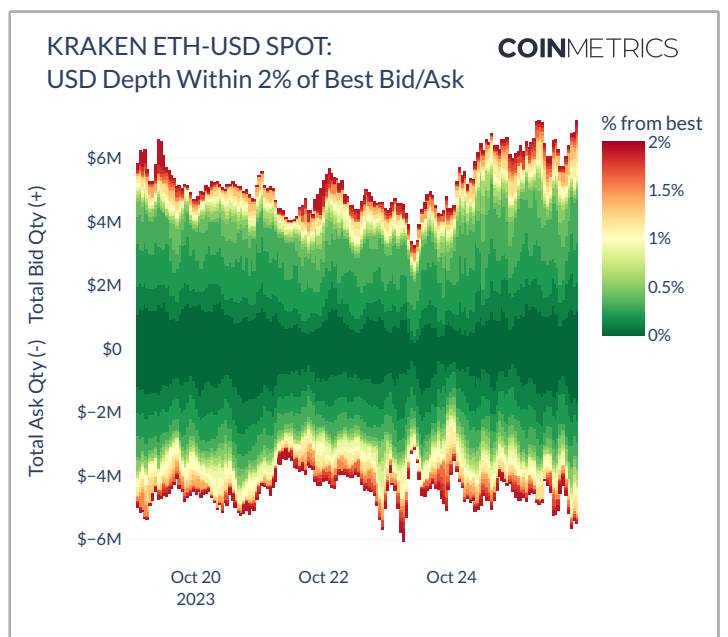
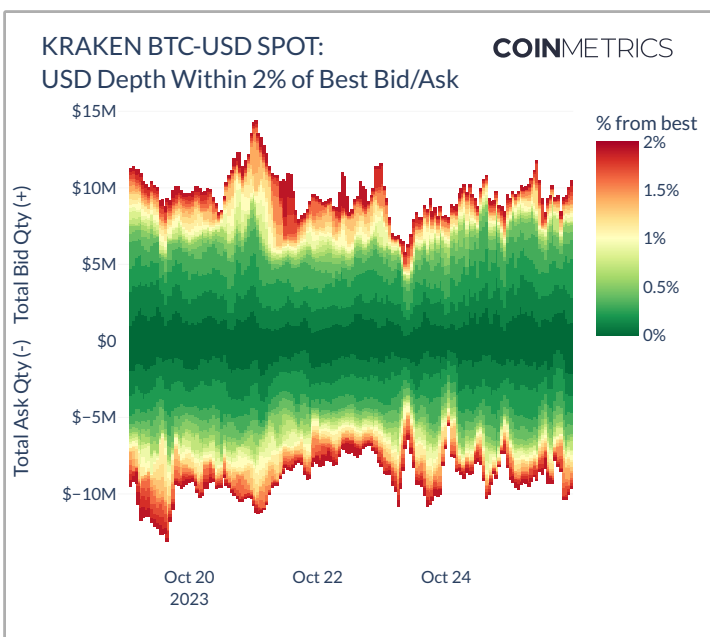
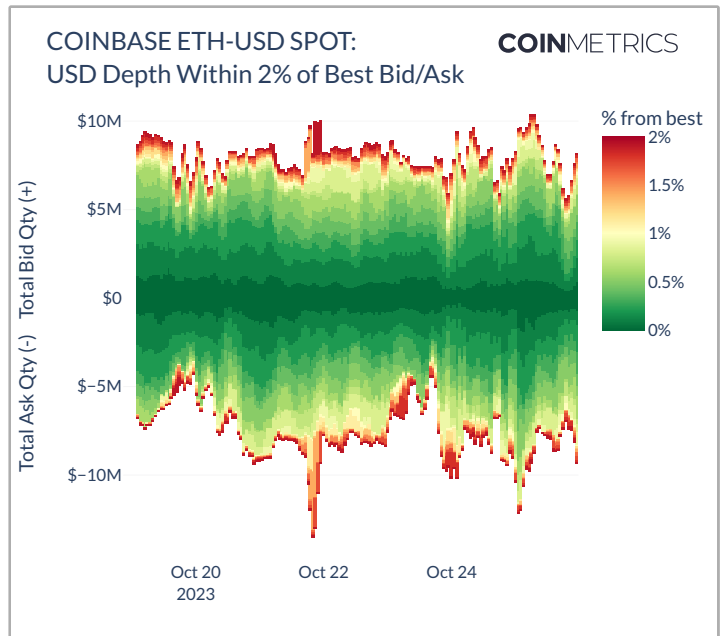
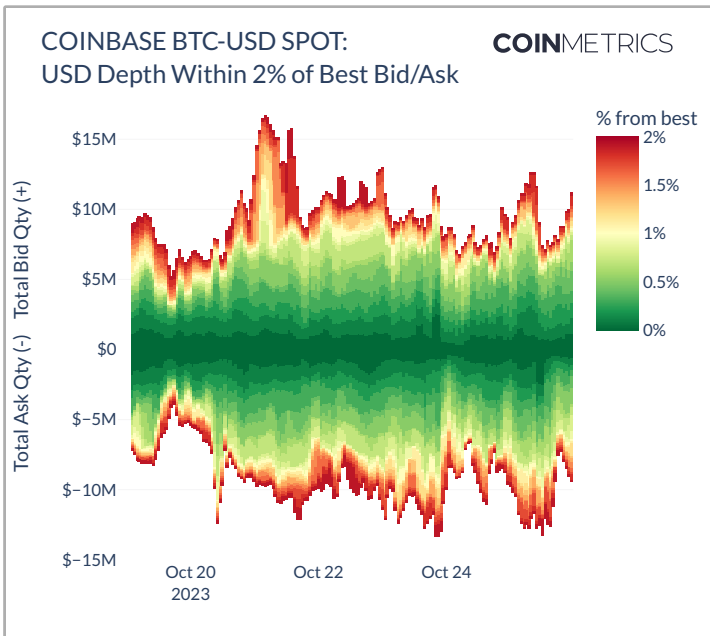
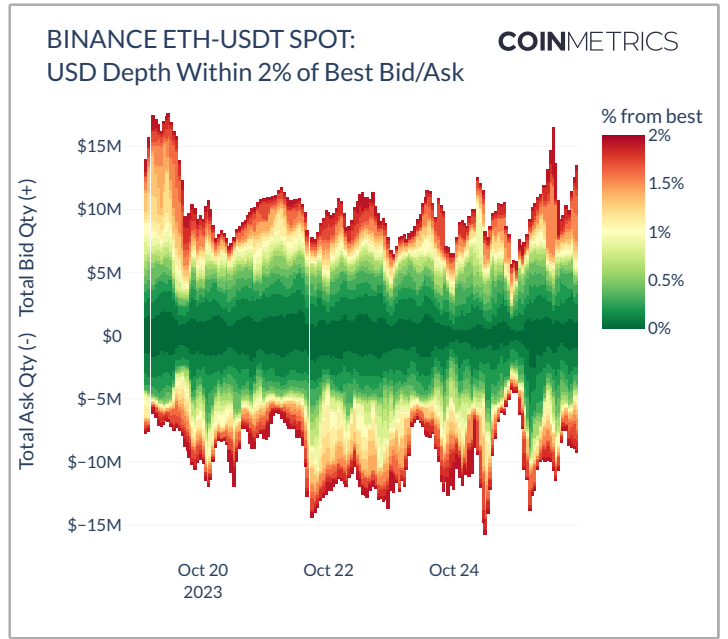
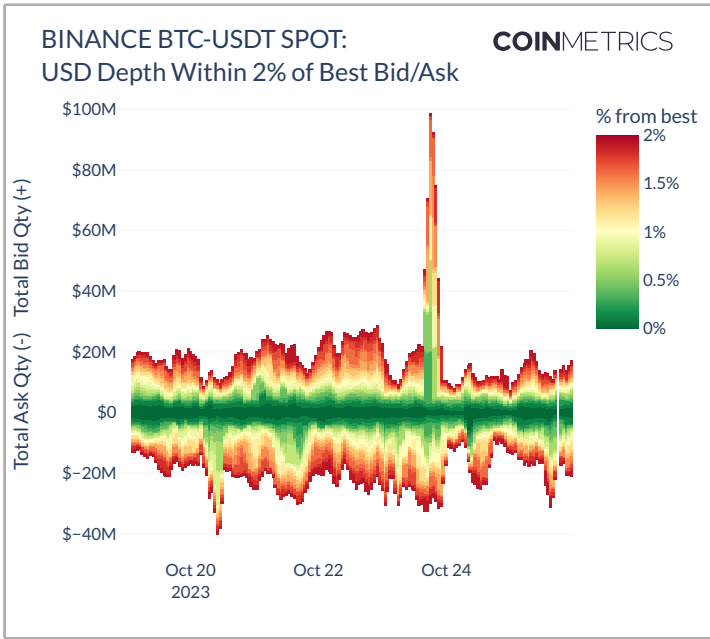
KRAKEN DAILY USD SPOT VOLUME 3M (2023-10-25) COINMETRICS



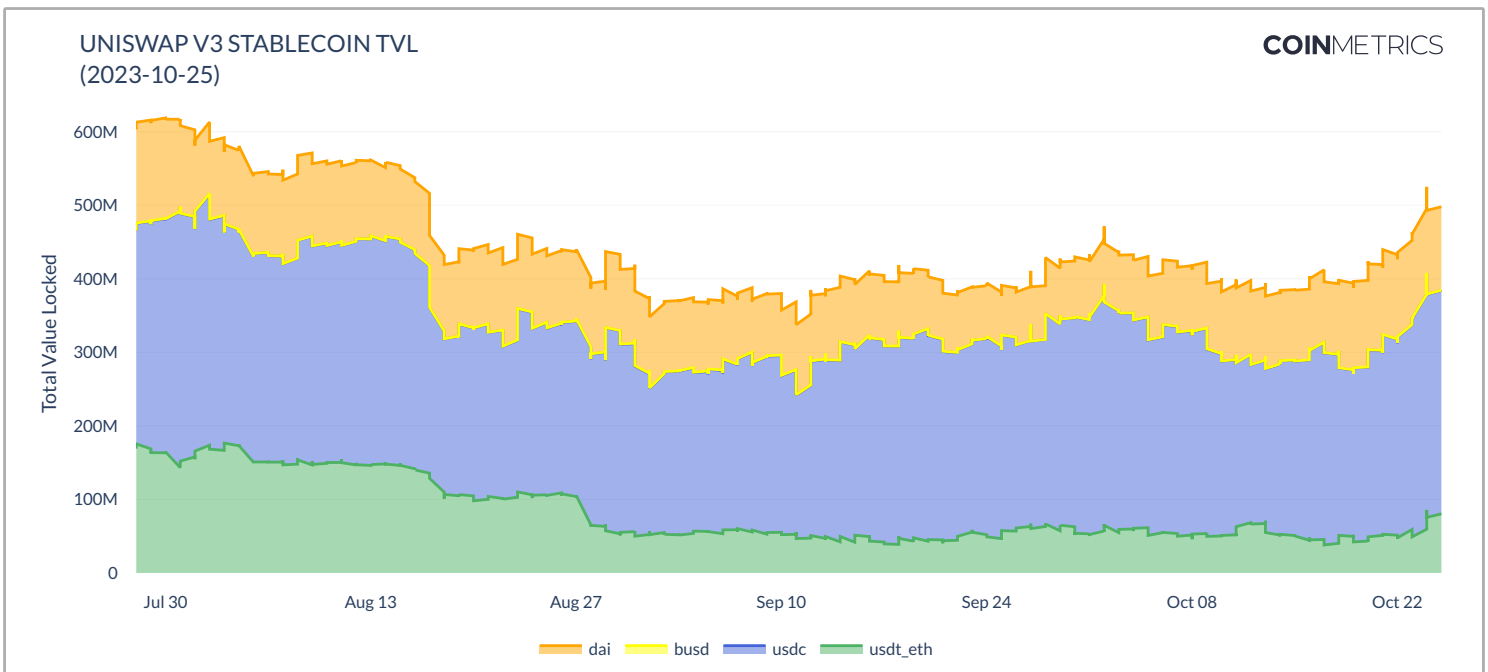
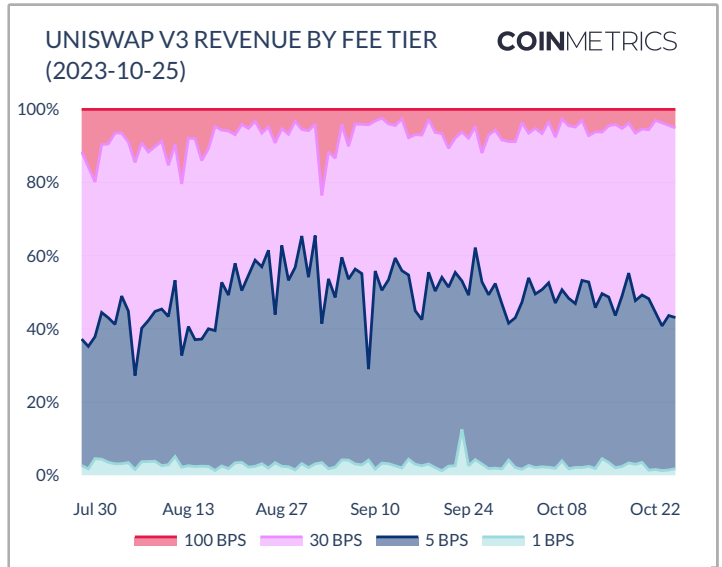
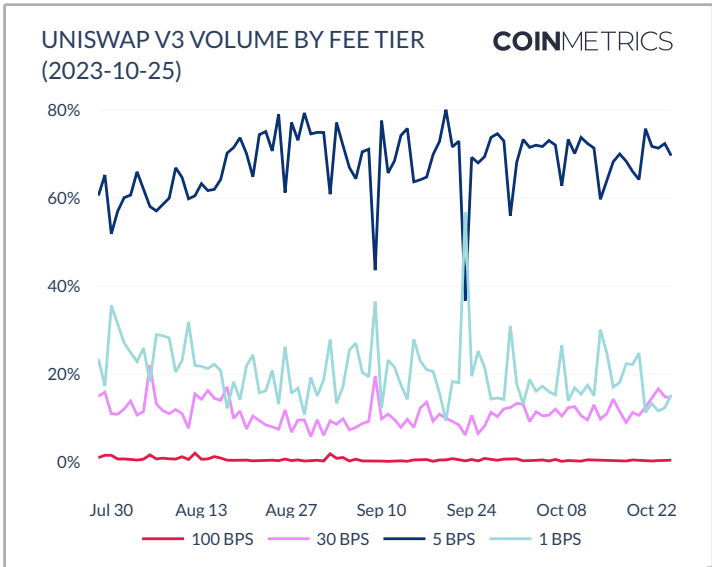
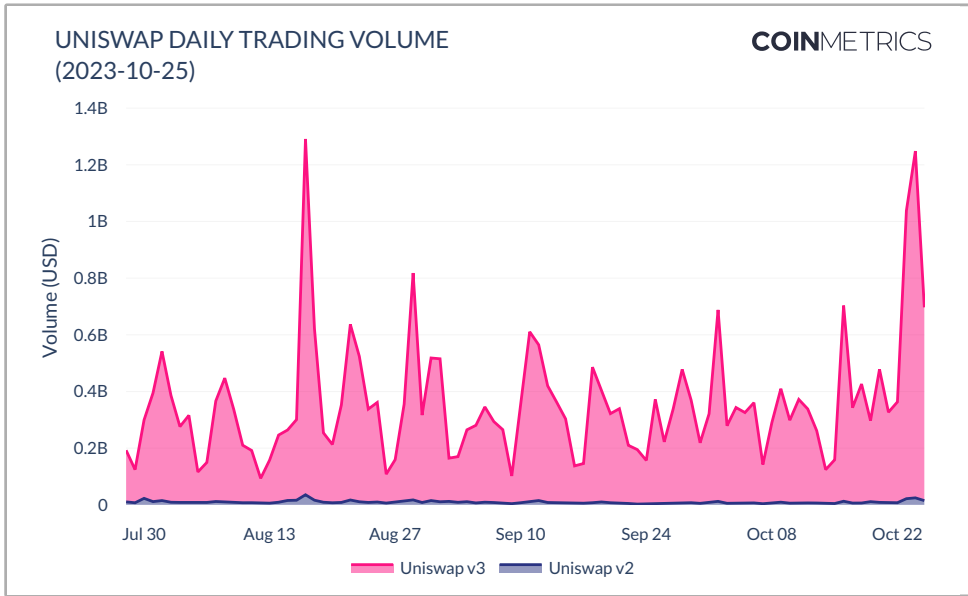
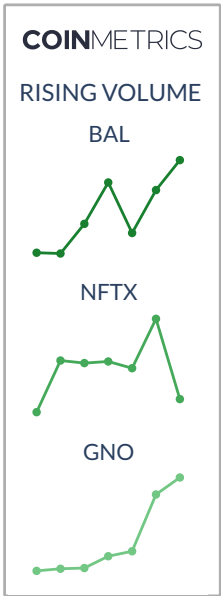
KRAKEN SPOT VOLUME, % BY ASSET 3M (2023-10-25) COINMETRICS



ORDER BOOK DEPTH



DEX DIGEST



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

DEFI BALANCE SHEETS

LENDING PROTOCOL TVL (USD)
1Y (2023-10-25)

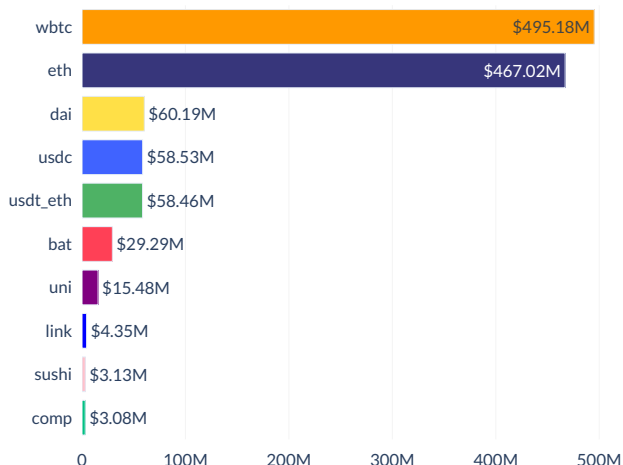
COINMETRICS



COMPOUND V2 BALANCE SHEET

PROTOCOL HEALTH RATIOS	VALUE	7D CHANGE
CURRENT RATIO	0.728711	2.3%
DEBT TO ASSETS RATIO	0.971805	0.18%
PROTOCOL UTILIZATION RATIO	0.300304	-5.73%
LIQUID SUPPLY RATIO	0.728711	2.3%
ASSETS AND LIABILITIES	VALUE	7D CHANGE
ASSETS TOTAL USD	\$1,687M	7.74%
ASSETS TOTAL COUNT	19	0.0%
LIABILITIES TOTAL USD	\$1,639M	7.93%
LIABILITIES TOTAL COUNT	19	0.0%
LOANS LENT TOTAL USD	\$492M	1.75%
TVL TOTAL USD	\$1,194M	10.41%
NET WORKING CAPITAL USD	-\$445M	1.8%

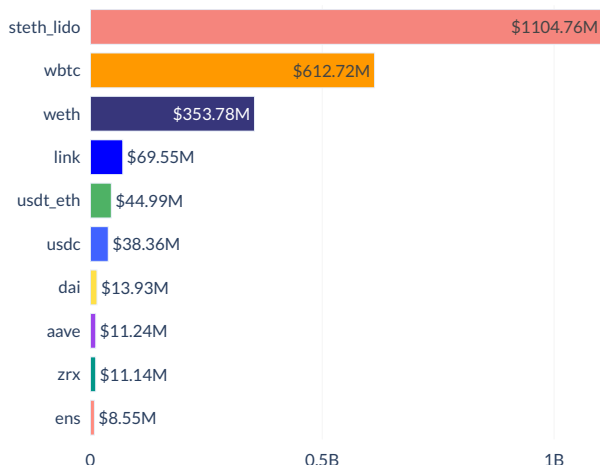
TOP 10 ASSETS BY TOTAL VALUE LOCKED (USD)



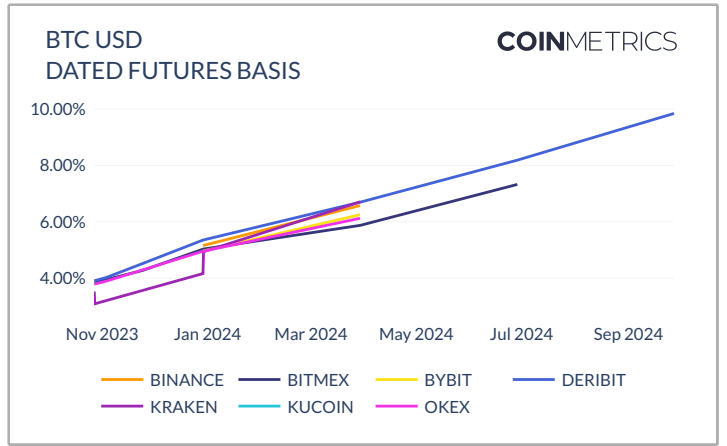
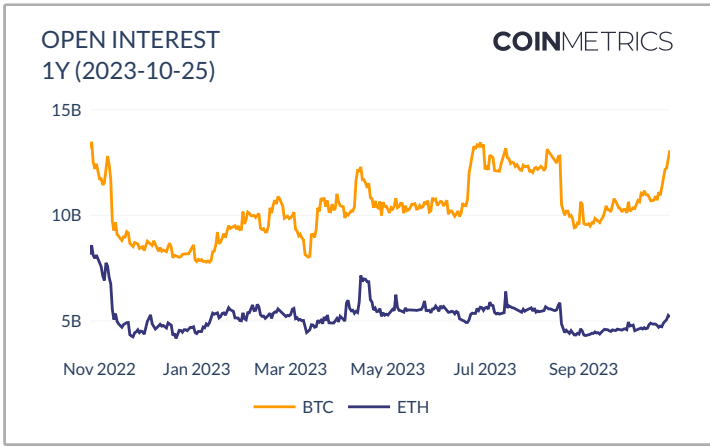
AAVE V2 BALANCE SHEET

PROTOCOL HEALTH RATIOS	VALUE	7D CHANGE
CURRENT RATIO	0.671124	2.27%
DEBT TO ASSETS RATIO	1.000156	0.0%
PROTOCOL UTILIZATION RATIO	0.328721	-4.35%
LIQUID SUPPLY RATIO	0.671124	2.27%
ASSETS AND LIABILITIES	VALUE	7D CHANGE
ASSETS TOTAL USD	\$3,385M	12.75%
ASSETS TOTAL COUNT	52	0.0%
LIABILITIES TOTAL USD	\$3,385M	12.75%
LIABILITIES TOTAL COUNT	52	0.0%
LOANS LENT TOTAL USD	\$1,113M	7.85%
TVL TOTAL USD	\$2,272M	15.31%
NET WORKING CAPITAL USD	-\$1,113M	7.85%

TOP 10 ASSETS BY TOTAL VALUE LOCKED (USD)



FUTURES FEED



OPEN INTEREST

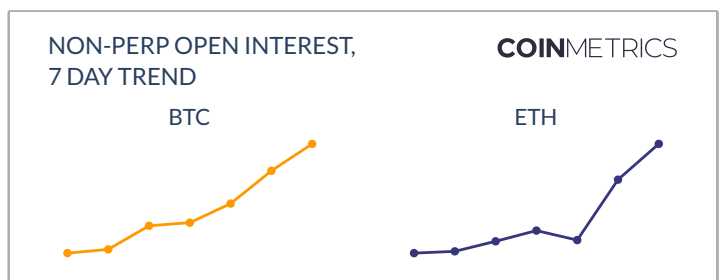
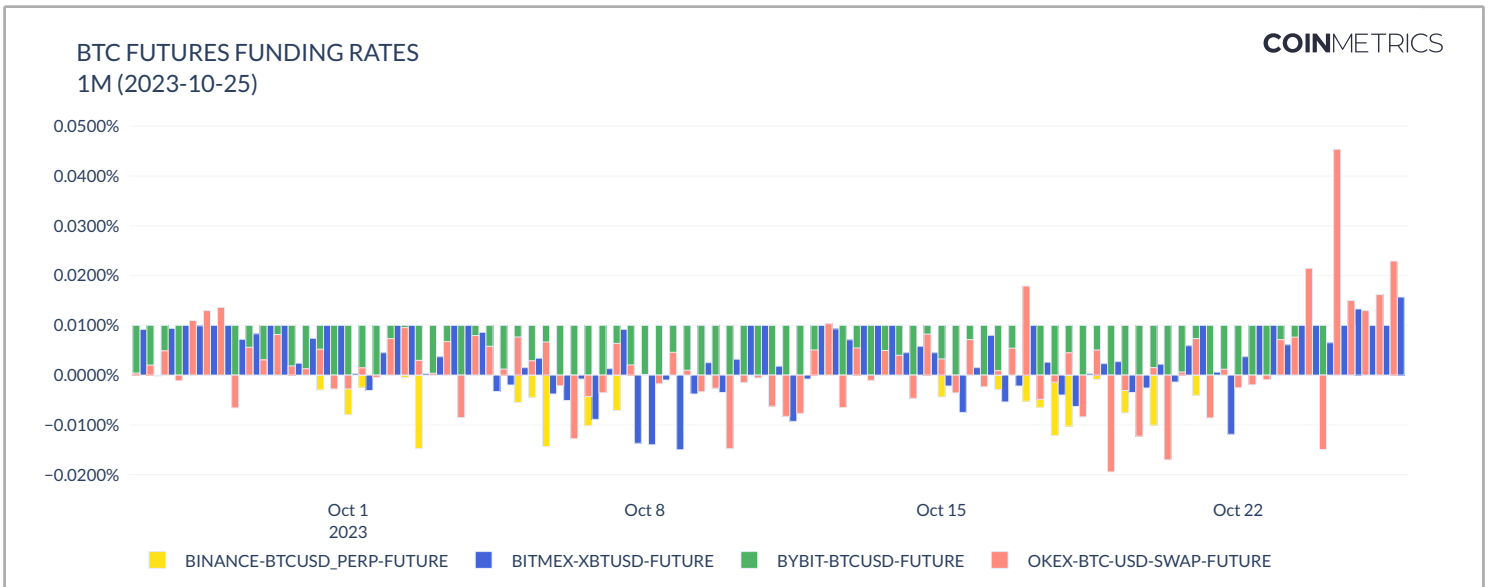
Sum of all reported open interest from futures markets in USD

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+19.51%	12,034,501,919	13,084,821,810	10,948,360,381
ETH	+8.86%	4,985,169,447	5,267,319,295	4,732,488,691
XRP	+22.28%	415,458,953	444,374,888	362,273,251
LINK	+93.25%	213,505,301	308,928,870	133,601,362
ADA	+3.79%	106,301,579	112,779,707	101,793,815
CRO	+6.87%	3,884,231	4,072,349	3,736,814
LTC	+5.22%	210,273,214	221,964,550	203,881,917
BCH	+0.22%	229,663,977	242,696,960	214,185,759
UNI	+13.38%	41,897,239	45,911,556	40,405,477

FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+72.04%	49,839,558,565	92,901,275,232	18,031,148,827
ETH	+71.09%	15,259,011,519	27,975,697,181	7,575,918,056
XRP	-21.21%	2,175,685,078	4,246,184,486	852,857,784
LINK	+992.78%	2,605,412,310	5,042,308,939	331,779,851
ADA	+81.86%	318,858,828	571,829,172	183,050,387
CRO	+104.53%	2,612,981	7,001,023	1,121,465
LTC	+100.30%	551,772,181	1,018,616,325	280,139,144
BCH	+6.21%	918,440,515	1,307,682,507	594,823,864
UNI	+124.65%	121,020,389	211,890,087	75,601,708



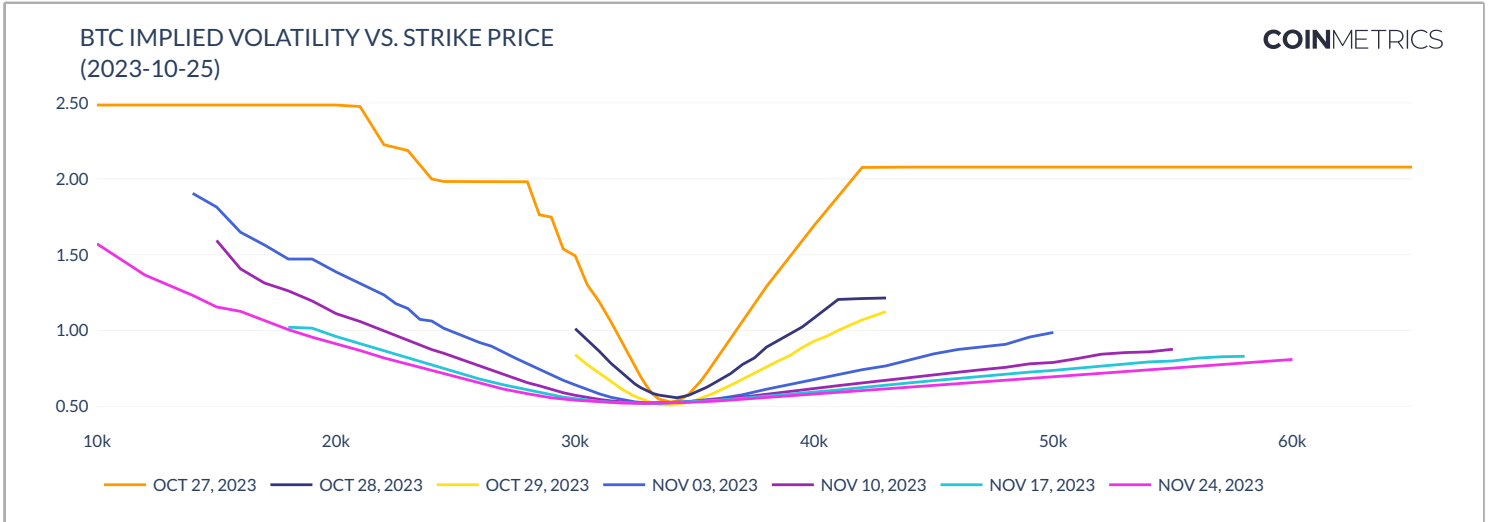
OPTIONS SNAPSHOT

BTC OPEN INTEREST

TOTAL	\$13,031,014,523
CALLS	\$8,773,807,157
PUTS	\$4,257,207,366

ETH OPEN INTEREST

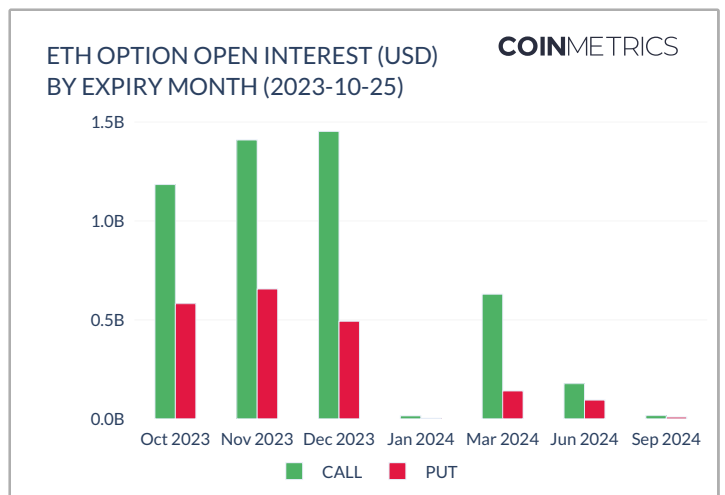
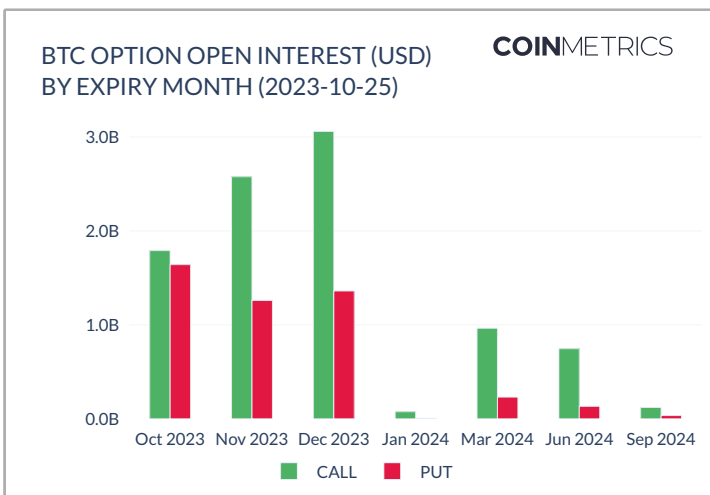
TOTAL	\$6,480,217,007
CALLS	\$4,694,091,949
PUTS	\$1,786,125,058



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	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA	
1.25681	-7.37593	0.04591	0.01851	0.00004	0.7288	0.0438	BTC-26OCT23-33000	0.0002	0.7286	0.00004	-0.98149	-2.66579	-8.38067	1.25681
9.01244	-160.17452	1.20632	0.68027	0.0002	0.6213	0.0366	BTC-26OCT23-33250	0.0002	0.6209	0.0002	-0.31973	-0.61813	-160.17452	9.01244
0.48563	-2.19693	0.01541	0.00621	0.00002	0.5596	0.0295	BTC-26OCT23-33500	0.0003	0.5593	0.00002	-0.99379	-2.73737	-3.23826	0.48563
9.34225	-145.35856	1.40823	0.70464	0.00018	0.5278	0.0225	BTC-26OCT23-33750	0.0006	0.5274	0.00018	-0.29536	-0.64528	-145.35856	9.34225
58.3595	-17.44468	25.69425	0.41184	0.00005	0.584	0.0457	BTC-27OCT23-33000	0.0017	0.584	0.00005	-0.58813	-57.48011	-17.44541	58.36195
11.92746	-272.69657	1.50448	0.59933	0.00009	0.5541	0.039	BTC-27OCT23-33250	0.0022	0.5541	0.00009	-0.40079	-1.22885	-274.28152	11.92898
12.08755	-276.10629	1.45014	0.5759	0.00009	0.5405	0.0327	BTC-27OCT23-33500	0.0031	0.5404	0.00009	-0.42406	-1.30234	-275.7	12.08732
12.20498	-280.38261	1.39442	0.55248	0.00009	0.5365	0.0269	BTC-27OCT23-33750	0.0046	0.5364	0.00009	-0.44753	-1.37917	-280.86839	12.205
8.90409	-59.3881	2.10901	0.78857	0.00024	0.5534	0.0478	BTC-28OCT23-33000	0.0034	0.5533	0.00024	-0.21143	-0.60206	-59.3881	8.90409
10.29524	-68.66673	1.94286	0.72351	0.00027	0.5429	0.0416	BTC-28OCT23-33250	0.0045	0.543	0.00027	-0.27649	-0.78876	-68.66673	10.29524



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	+20.24%	612,480,610,488	673,349,438,741	559,989,684,490
ETH	+14.19%	208,748,677,805	221,415,436,114	193,901,379,467
XRP	+6.79%	53,407,143,767	55,855,165,643	51,671,610,974
LINK	+50.58%	9,402,103,447	10,998,135,557	7,304,032,309
ADA	+13.74%	9,173,346,320	9,687,819,080	8,517,800,794
CRO	+13.07%	5,471,819,446	5,788,424,811	5,119,233,743
LTC	+11.25%	4,866,476,509	5,093,203,030	4,555,014,686
BCH	+11.79%	4,803,335,369	5,086,558,581	4,440,216,349
UNI	+6.00%	4,144,781,746	4,366,922,347	3,927,868,258
FTT	+26.10%	361,618,294	428,039,919	339,455,800

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+20.18%	430,509,898,624	473,126,214,686	393,665,843,199
ETH	+13.95%	156,734,621,500	195,606,027,705	171,653,887,005
XRP	+6.94%	25,234,700,718	26,417,743,638	24,405,210,725
LINK	+50.57%	5,125,634,642	5,995,654,477	3,981,893,845
ADA	+13.84%	8,173,684,162	8,637,737,106	7,587,896,192
CRO	+13.07%	519,293,802	549,337,913	485,835,703
LTC	+11.23%	4,114,256,736	4,305,766,011	3,851,297,968
BCH	+11.81%	3,236,523,216	3,427,314,841	2,991,723,719
UNI	+7.46%	1,043,978,060	1,099,366,132	975,493,776
FTT	+26.10%	361,618,294	428,039,919	339,455,800

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	+0.83%	398,394,768,813	400,421,458,991	397,109,839,449
ETH	+1.87%	148,192,509,103	149,614,108,265	146,861,030,754
XRP	+0.73%	51,917,897,196	52,161,611,307	51,777,054,398
LINK	+4.43%	8,598,990,583	8,787,525,148	8,414,437,646
ADA	+0.18%	15,359,947,657	15,380,548,913	15,343,334,153
CRO	+0.08%	20,524,381,175	20,529,887,788	20,514,470,463
LTC	+0.09%	6,738,134,713	6,742,809,275	6,734,339,959
BCH	+0.92%	4,715,815,940	4,742,682,088	4,699,361,683
UNI	-6.41%	7,979,605,070	8,442,502,924	7,895,415,301
FTT	-0.45%	637,778,992	640,880,030	635,935,826

MARKET VALUE TO REALIZED VALUE

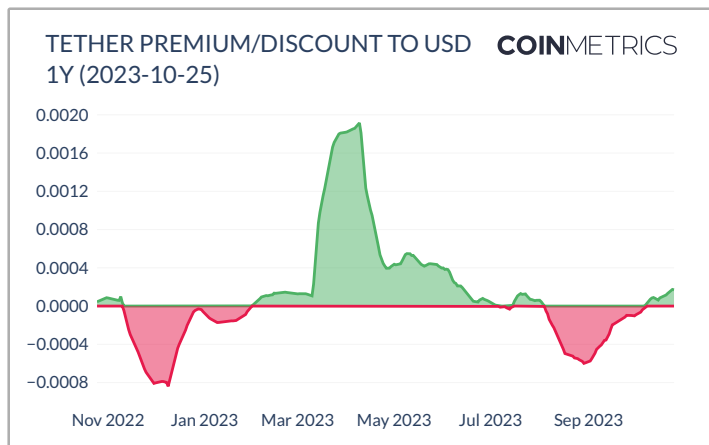
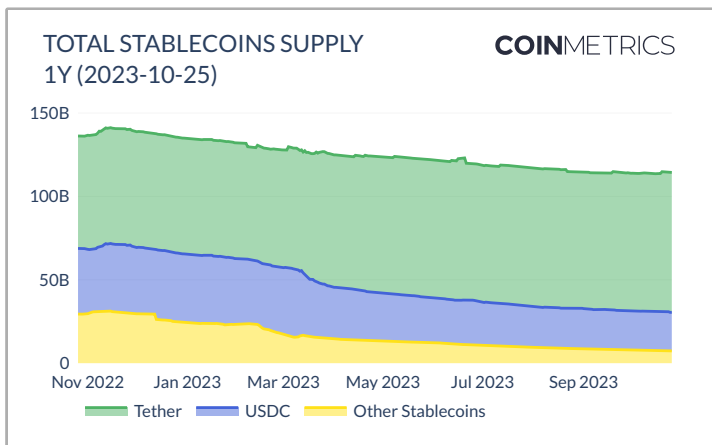
The ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+19.25%	1.54	1.68	1.41
ETH	+12.09%	1.41	1.48	1.32
XRP	+6.02%	1.03	1.07	1.00
LINK	+44.18%	1.09	1.25	0.87
ADA	+13.53%	0.60	0.63	0.56
CRO	+12.99%	0.27	0.28	0.25
LTC	+11.16%	0.72	0.76	0.68
BCH	+10.77%	1.02	1.08	0.94
UNI	+13.27%	0.52	0.55	0.47
FTT	+26.67%	0.57	0.67	0.53

MARKET VALUE TO REALIZED VALUE 1Y (2023-10-25)



STABLECOINS REPORT



MARKET CAPITALIZATION

USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-0.02%	39,040,710,415	39,046,343,027	39,027,035,123
USDT_OMNI	-0.02%	888,364,303	888,492,472	888,053,124
USDT_TRX	-0.02%	44,848,558,411	44,855,028,953	44,832,848,729
PAX	-0.29%	483,207,692	484,458,941	481,839,311
DAI	-0.72%	3,785,306,102	3,807,402,788	3,756,623,994
USDC	-1.42%	23,406,134,501	23,543,760,090	23,096,814,359
BUSD	-0.84%	2,090,397,951	2,095,817,639	2,078,242,045
GUSD	-24.61%	171,841,414	216,030,362	162,864,325

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+24.14%	3,158,606,697	5,065,530,714	1,366,575,079
USDT_OMNI	+212.90%	539,554	3,107,045	1,029
USDT_TRX	-18.52%	10,099,562,366	12,981,642,765	5,158,007,412
PAX	-20.92%	8,990,343	19,426,783	292,987
DAI	+39.12%	4,261,735,080	7,204,463,505	2,044,661,033
USDC	+12.06%	4,101,369,066	5,967,760,546	2,157,103,061
BUSD	-42.96%	9,987,712	38,569,411	1,543,531
GUSD	-40.73%	16,655,309	102,968,092	577,208



TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+7.93%	117,922	145,225	90,313
USDT_OMNI	+62.50%	17	54	5
USDT_TRX	+6.65%	1,950,434	2,102,953	1,688,220
PAX	+36.79%	113	189	56
DAI	+16.88%	5,077	7,086	3,728
USDC	+35.85%	45,622	59,235	35,359
BUSD	+17.93%	510	696	378
GUSD	-18.75%	446	1,040	43

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

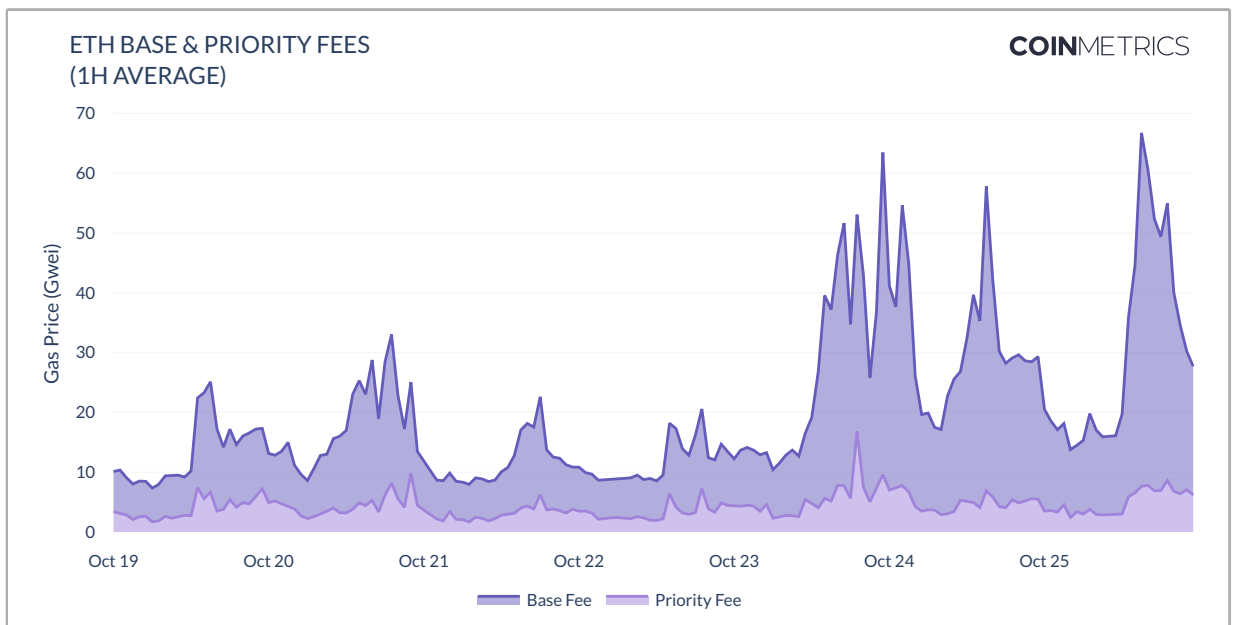
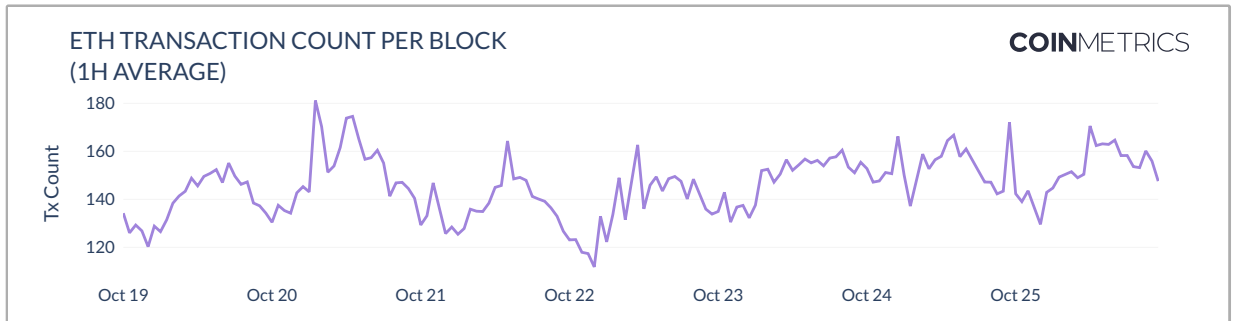
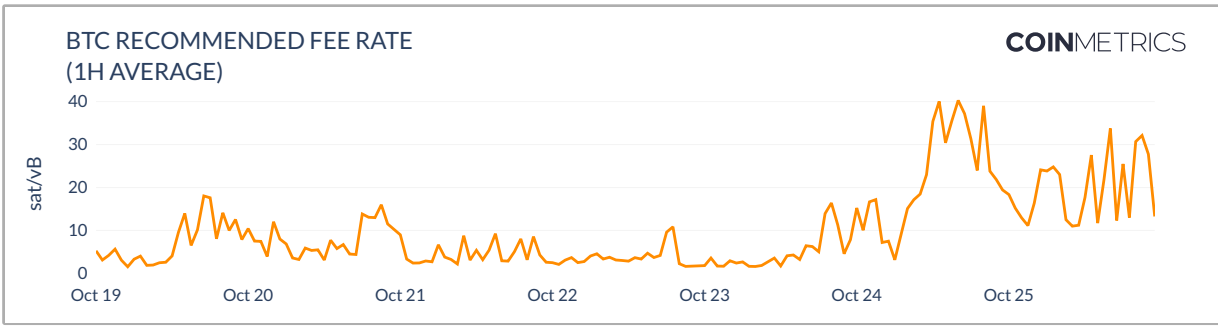
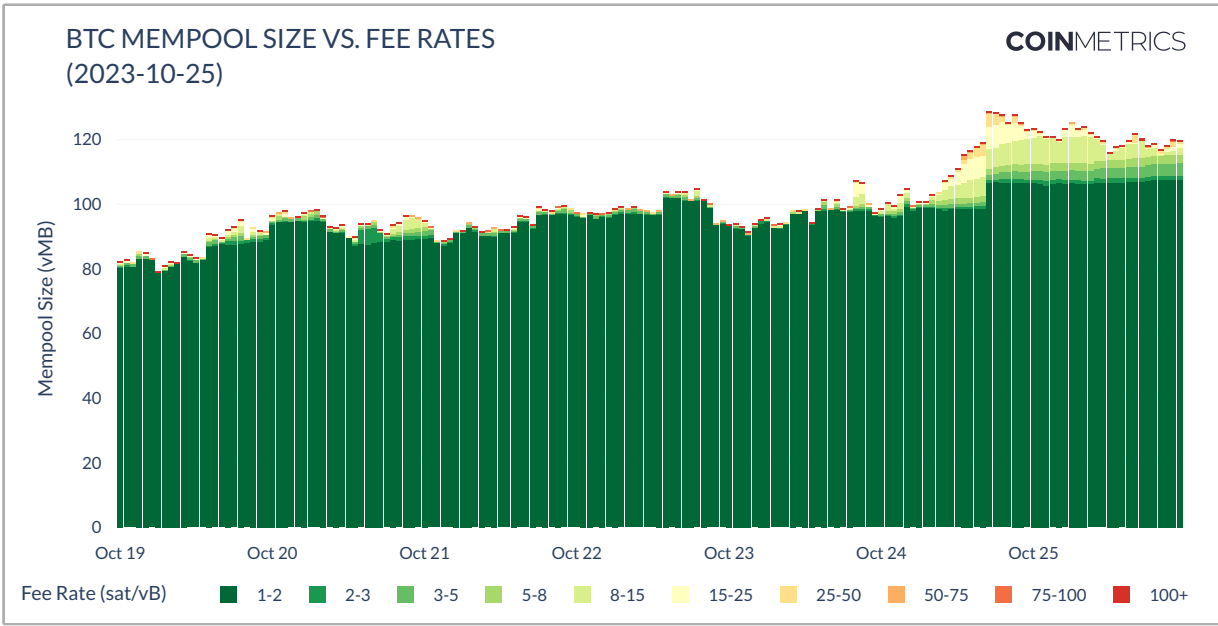
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+22.77%	533	797	350
USDT_OMNI	-79.89%	1,472	8,285	83
USDT_TRX	+45.45%	146	195	112
PAX	+40.55%	2,363	4,961	397
DAI	+135.13%	2,105	4,166	1,000
USDC	+41.44%	1,016	1,812	529
BUSD	+34.51%	246	475	107
GUSD	-35.89%	106	252	31

VELOCITY

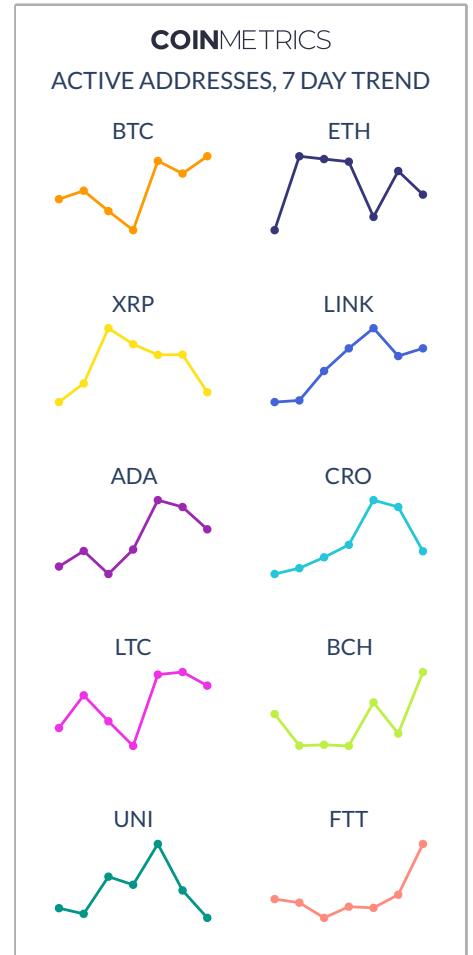
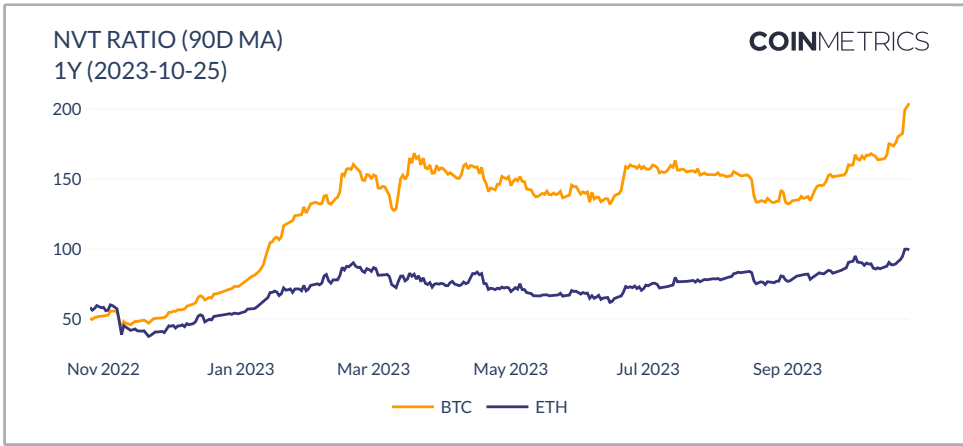
Number of times that an average native unit among the active supply has been transferred in the past 1 year

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+1.11%	38.60	38.83	38.40
USDT_OMNI	+0.19%	36.29	36.31	36.23
USDT_TRX	+0.73%	72.37	72.66	72.14
PAX	+0.70%	37.08	37.23	36.98
DAI	+6.46%	134.70	138.71	130.30
USDC	+0.78%	112.04	113.51	111.38
BUSD	-0.92%	70.46	71.12	70.09
GUSD	+33.29%	29.48	30.92	22.85

FEE MARKET



NETWORK DATA FUNDAMENTALS



ACTIVE ADDRESSES

Count of unique addresses that were active in the network

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+18.67%	960,155	1,090,466	795,000
ETH	+3.41%	457,346	469,117	438,039
XRP	+4.81%	27,583	31,875	23,413
LINK	+138.63%	5,450	8,086	2,783
ADA	+31.83%	35,097	44,744	26,708
CRO	+33.59%	372	535	256
LTC	+8.65%	222,441	235,942	203,977
BCH	+102.41%	118,044	302,315	33,121
UNI	-2.42%	1,034	1,150	967
FTT	+113.11%	129	260	75

FREE FLOAT SUPPLY

Sum of native units readily available to trade in open markets

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	-0.02%	13,721,451	13,723,242	13,718,313
ETH	+0.02%	93,933,103	109,606,347	109,557,305
XRP	+0.14%	47,243,343,757	47,291,315,678	47,222,077,996
LINK	-0.00%	545,158,926	545,163,778	545,151,898
ADA	+0.11%	30,778,584,458	30,802,986,706	30,768,664,288
CRO	-0.00%	9,490,333,240	9,490,398,894	9,490,283,291
LTC	+0.01%	62,385,303	62,389,462	62,381,960
BCH	+0.04%	13,165,331	13,168,019	13,163,034
UNI	+1.37%	251,856,735	253,124,372	248,351,959
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	+69.30%	322,117	477,890	247,456
ETH	+8.34%	1,042,418	1,098,323	980,622
XRP	+11.45%	930,182	1,036,927	851,990
LINK	+204.91%	8,447	12,840	3,526
ADA	+34.56%	55,066	63,306	45,427
CRO	+46.04%	414	581	278
LTC	+8.01%	112,092	117,888	105,076
BCH	+127.19%	98,882	310,320	11,046
UNI	+25.57%	1,400	1,900	1,087
FTT	+67.19%	235	530	110

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+72.09%	4,763,968,103	7,723,234,078	2,293,782,583
ETH	+67.68%	2,829,396,642	5,068,131,158	1,453,537,642
XRP	+27.98%	584,412,793	860,307,013	207,862,035
LINK	+457.32%	195,839,870	335,494,226	49,698,041
ADA	+36.46%	4,654,677,620	6,448,918,589	3,707,414,367
CRO	+61.63%	12,108,226	35,521,799	589,478
LTC	+25.50%	70,717,476	86,206,157	49,566,633
BCH	+133.41%	32,922,935	50,559,190	16,910,071
UNI	+514.33%	43,059,077	83,316,368	8,316,876
FTT	+144.74%	3,798,279	9,908,602	1,506,981

ADDRESSES ≥ \$1

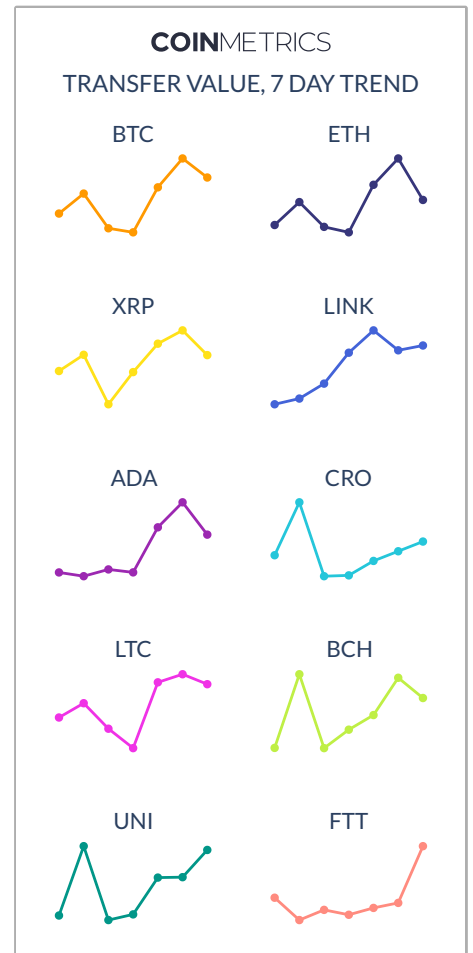
Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+1.88%	40,990,038	41,396,819	40,634,739
ETH	+4.46%	59,941,141	61,171,555	58,557,905
XRP	+0.16%	4,829,533	4,833,532	4,825,813
LINK	+0.90%	539,178	541,180	536,349
ADA	+1.25%	3,556,642	3,572,325	3,528,137
CRO	+0.68%	150,184	150,616	149,605
LTC	+1.87%	2,353,082	2,371,363	2,324,449
BCH	+2.60%	4,618,393	4,684,137	4,539,746
UNI	+0.48%	287,227	288,049	286,222
FTT	+2.54%	21,645	22,032	21,487

ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+8.64%	76,016	79,704	73,368
ETH	+11.21%	9,518	9,994	8,987
XRP	+3.61%	1,204	1,239	1,183
LINK	+38.14%	549	623	451
ADA	+9.75%	760	790	718
CRO	-4.35%	23	23	22
LTC	+8.47%	432	449	413
BCH	+12.61%	367	388	341
UNI	+5.10%	261	268	249
FTT	+15.38%	14	15	12



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
- **CMBISCPPE:** 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 10/22/2023 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 10/22/2023 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.