

STATE OF THE MARKET

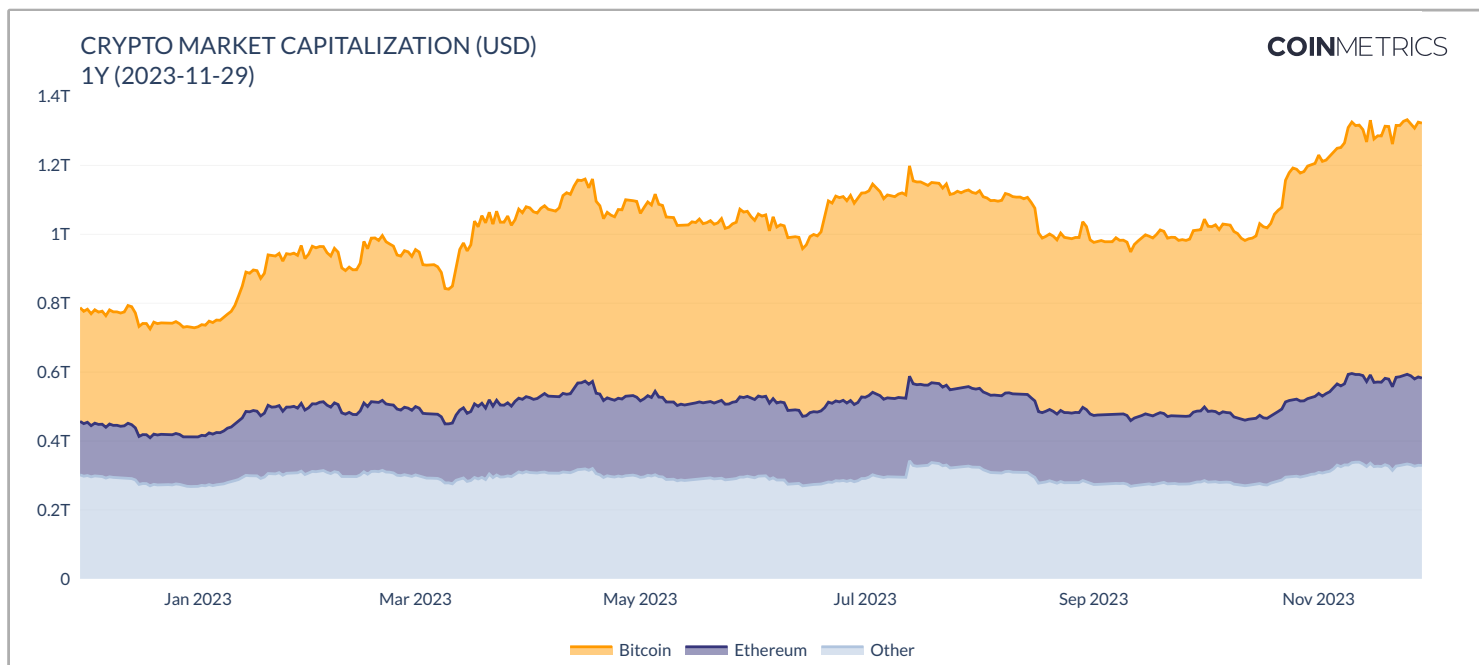
NOV. 23 - 29, 2023

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

CM

MARKET SUMMARY

Following Binance's \$4.3B settlement with the U.S. Department of Justice, the future of crypto's biggest exchange hangs in balance. As Changpeng Zhao (CZ) steps down as CEO of Binance & board member of Binance.US, Coinbase CEO Brian Armstrong voiced optimism about the leadership transition, claiming that there have "certainly have been a few bad actors in crypto," but the industry will now be able to "close that chapter of crypto's history." At the moment, CZ is barred from leaving the U.S., and while initial reports estimated he could face up to 18 mos. in prison, a Nov. 24 filing indicates prosecutors may argue for "any sentence up to the statutory maximum of ten years." Binance's new CEO Richard Teng— the firm's former head of regional markets— outlined plans to continue driving "growth and the adoption of Web3," but the exchange still remains ensnared in a plethora of legal & logistical issues. On Tuesday, the securities regulator of the Philippines accused Binance of operating in the country without proper licenses, blocking Filipino users from engaging with the platform. Binance also announced they'd be halting support for their BUSD stablecoin on Dec. 15, closing the book on an asset that once spanned the majority of the exchange's major trading pairs. Meanwhile, BUSD's former issuer Paxos has received approval to expand services to Abu Dhabi, allowing the company to issue stablecoins and offer brokerage & custody services in the region. International expansion is key for crypto firms, particularly with increasingly burdensome regulatory overhang in the U.S. This week, fintech firm SoFi reported they were exiting the digital asset sector, turning user accounts over to Blockchain.com by Dec. 19. The move is reportedly motivated in part by the Federal Reserve's new "novel activities supervision program," with the central bank previously asserting SoFi's crypto efforts were "not found to be permissible for a bank holding company." After a painfully prolonged bear market, big raises appear to be back in style. Cross-blockchain communication platform Wormhole received \$225M from Jump Trading, Brevan Howard, Coinbase Ventures, & Multicoins Capital at a lofty \$2.5B valuation. Block's Jack Dorsey led a more modest seed round for Mummolin, developer of a new mining pool called Ocean. Founded by longtime Bitcoin Core dev Luke Dashjr, the firm raised \$6.2M to launch "the most transparent pool and also the only noncustodial pool." The pool offers auditable block templates and a no-KYC policy, but has stirred up controversy due to its apparent aim to censor Ordinals transactions. Earlier this week, Bitcoin mining company DEMAND also launched the industry's first Stratum V2 mining pool, allowing miners to directly participate in the transaction selection process. According to CEO Alejandro de la Torre, the pool's solo mining features should help "make home mining more attractive, which should in effect help decentralize the Bitcoin mining ecosystem." As centralized exchanges & fintech firms struggle to meet regulatory demands, the decentralized infrastructure underpinning crypto's core protocols may become the industry's next pressure point.



PRICE (CMBI CONSTITUENTS)

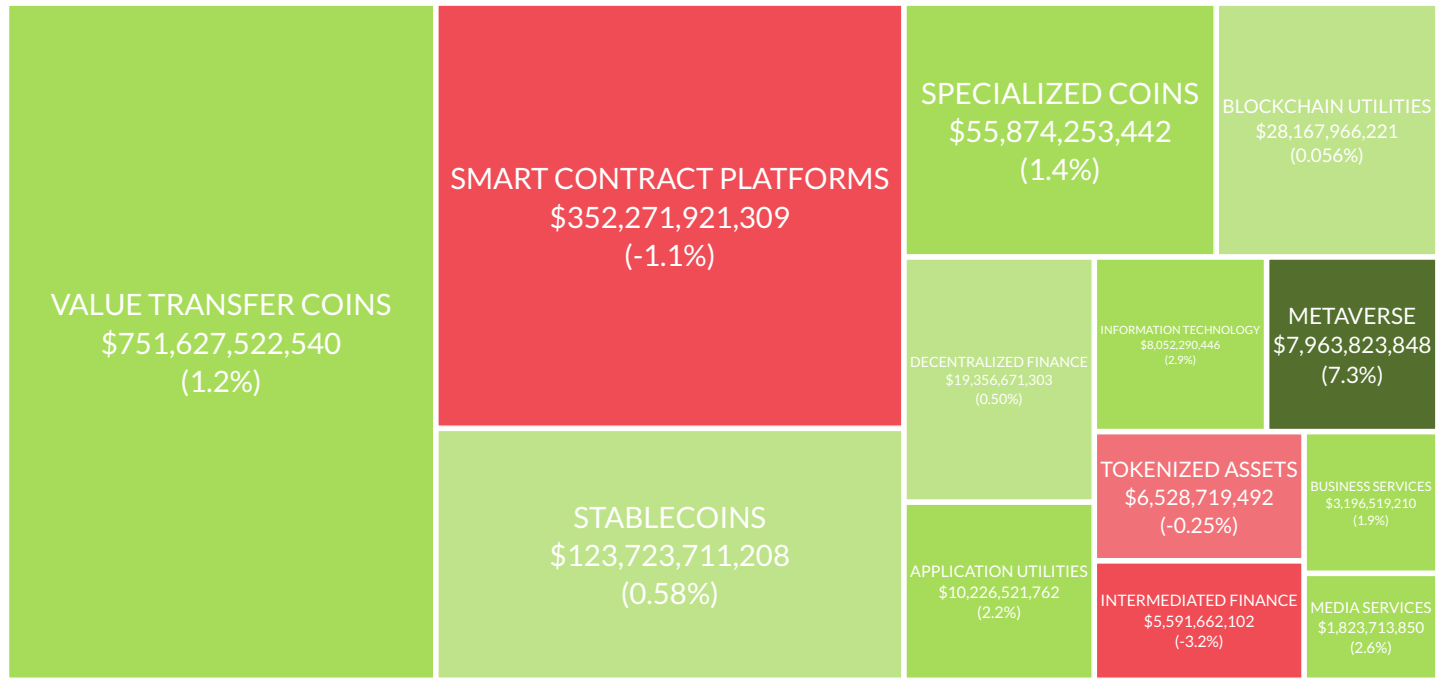
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
BTC	\$37,719.27	+1.08%	\$38,223.75	\$36,880.67	+122.74%	\$38,223.75	\$16,542.40
ETH	\$2,027.49	-1.84%	\$2,088.83	\$1,994.39	+59.18%	\$2,129.88	\$1,174.46
SOL	\$59.63	+5.39%	\$59.63	\$54.01	+342.59%	\$66.25	\$8.35
ADA	\$0.38	+0.63%	\$0.39	\$0.37	+21.57%	\$0.45	\$0.24
DOGE	\$0.08	+6.28%	\$0.08	\$0.08	-21.04%	\$0.10	\$0.06
TRX	\$0.10	+1.54%	\$0.11	\$0.10	+90.63%	\$0.11	\$0.05
MATIC	\$0.75	-2.62%	\$0.77	\$0.73	-17.92%	\$1.52	\$0.50
BNB	\$226.99	-2.95%	\$233.89	\$224.16	-22.24%	\$348.71	\$204.88
AVAX	\$20.93	+1.66%	\$21.25	\$19.94	+61.85%	\$22.17	\$8.82
LINK	\$14.53	-0.20%	\$14.72	\$13.94	+90.75%	\$16.30	\$5.09
CMBI10	\$3,767.42	+0.27%	\$3,816.37	\$3,681.69	+84.88%	\$3,816.37	\$1,904.46

ASSET CLASSES

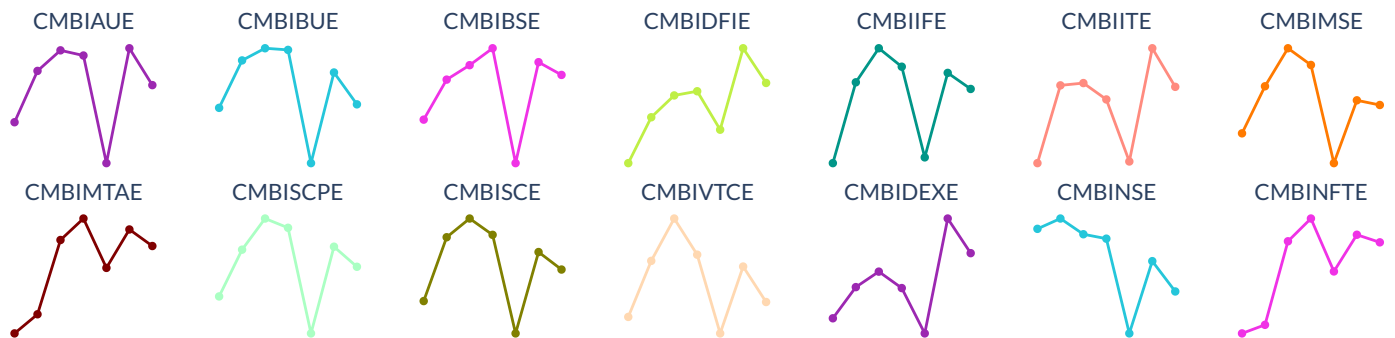
DIGITAL ASSET SECTOR 7D MARKETCAP (2023-11-29)

COINMETRICS



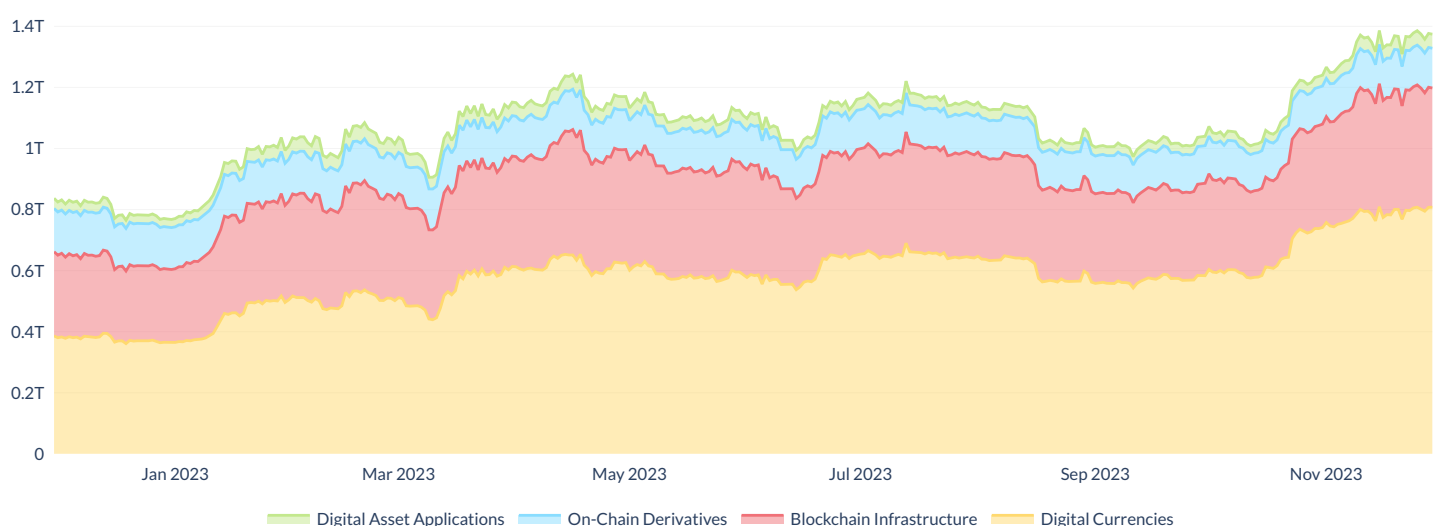
TRENDING SECTOR INDEXES, 7 DAY TREND

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	\$37,719.27	+1.08%	\$38,223.75	\$36,880.67	+122.74%	\$38,223.75	\$16,542.40
CMBIBTCT	\$40,525.14	+1.08%	\$41,067.15	\$39,624.16	+122.74%	\$41,067.15	\$17,772.96
CMBIETH	\$2,027.49	-1.84%	\$2,088.83	\$1,994.39	+59.18%	\$2,129.88	\$1,174.46
CMBIETHT	\$2,201.02	-1.84%	\$2,267.62	\$2,165.10	+59.18%	\$2,312.19	\$1,274.99



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	\$3,767.42	+0.27%	\$3,816.37	\$3,681.69	+84.88%	\$3,816.37	\$1,904.46
CMBI10E	\$6,191.94	+0.98%	\$6,266.56	\$5,965.53	+45.83%	\$6,424.94	\$3,409.70
CMBI10EX	\$7,553.85	-1.02%	\$7,728.10	\$7,375.58	+43.53%	\$7,991.44	\$4,659.07
CMBI10M	\$13,133.23	+0.03%	\$13,348.56	\$12,957.75	+34.55%	\$13,686.82	\$9,310.27
CMBIBE	\$18,294.23	+0.11%	\$18,560.11	\$17,922.60	+98.14%	\$18,560.11	\$8,845.89

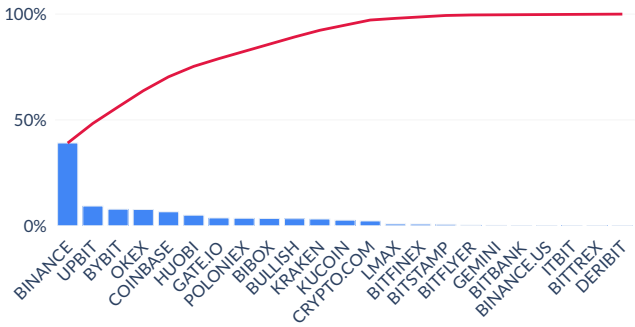


MARKET MOVEMENT

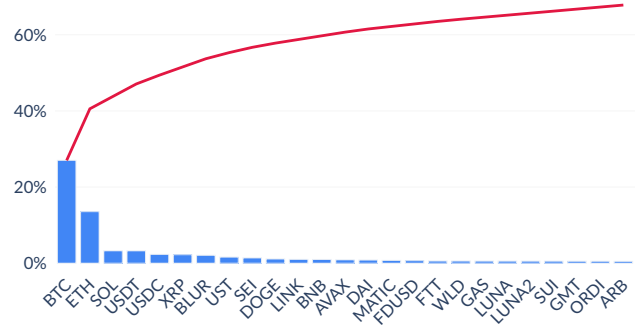
TRADING DIARY, 7 DAY

ADVANCING VOLUME	\$137,234,001,775
DECLINING VOLUME	\$37,733,005,015
ADVANCES	372
DECLINES	343

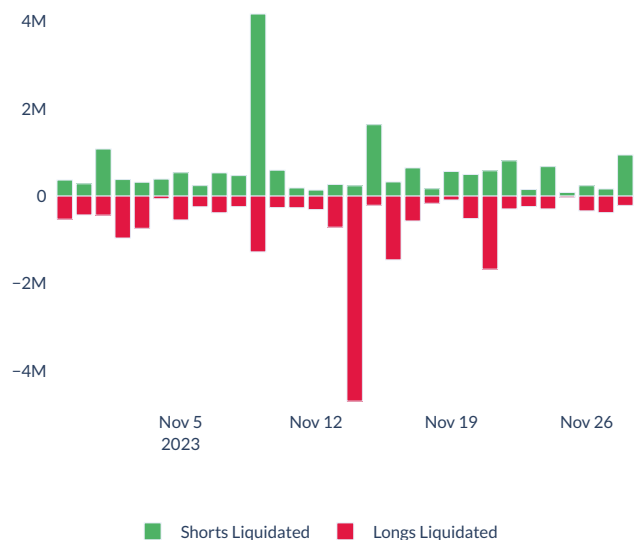
EXCHANGE SPOT SHARE, 7 DAY MEAN



BASE ASSET SPOT SHARE, 7 DAY MEAN

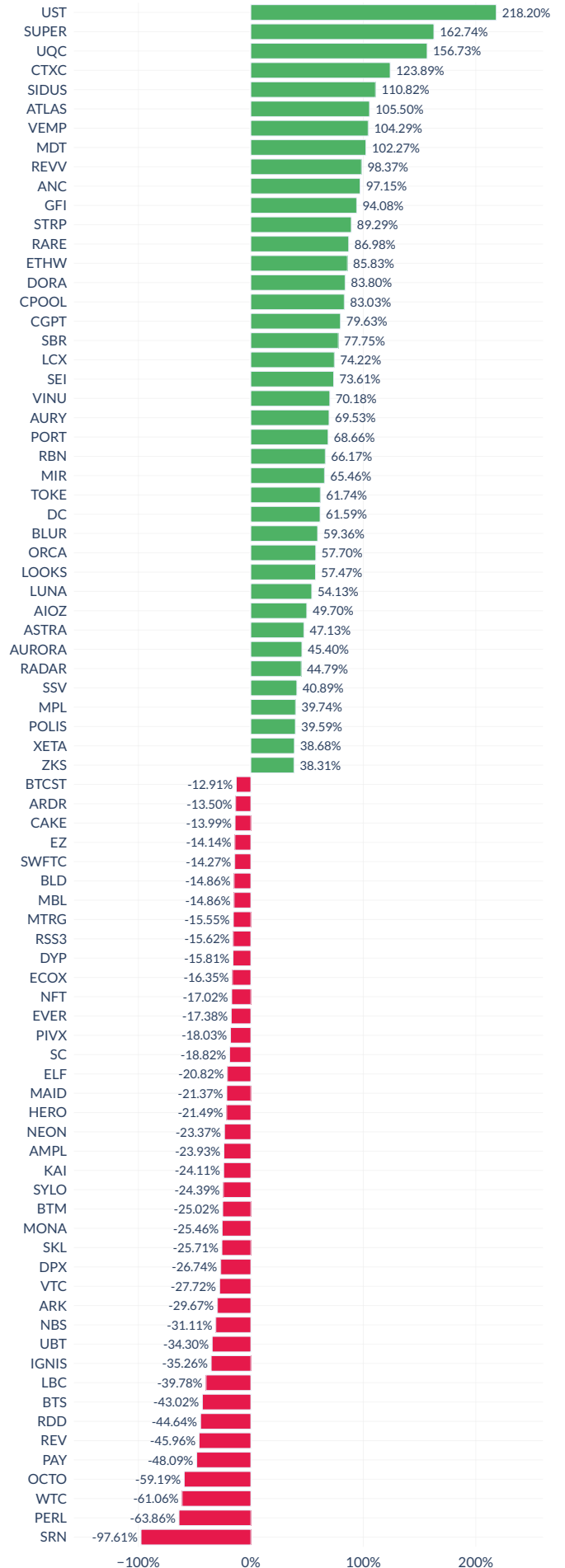


BTC PERPETUALS, TOTAL LIQUIDATIONS

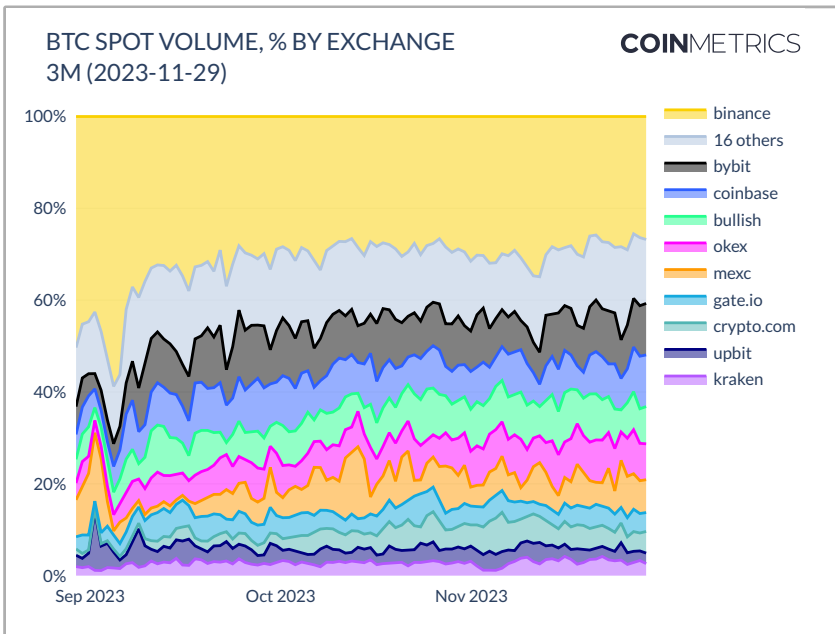
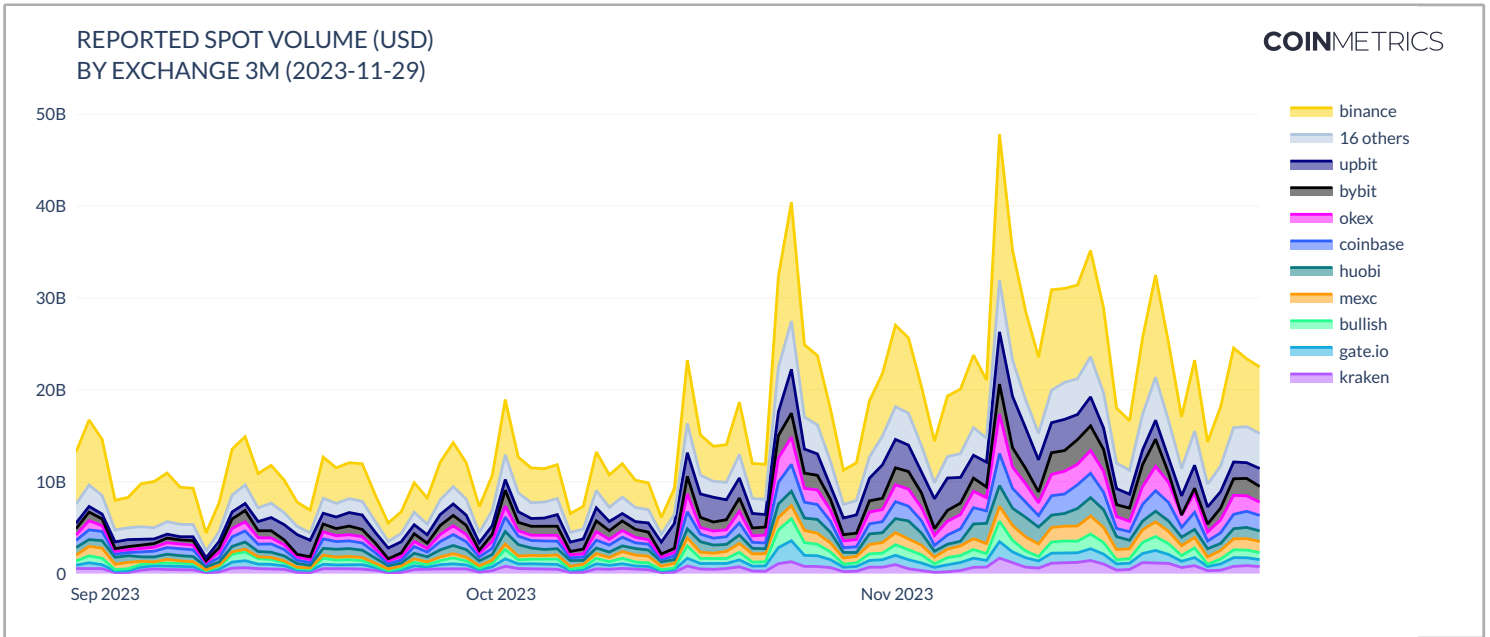


PRICE CHANGE, 7 DAY

COINMETRICS



AGGREGATE VOLUME



BTC SPOT VOLUME LEADERS

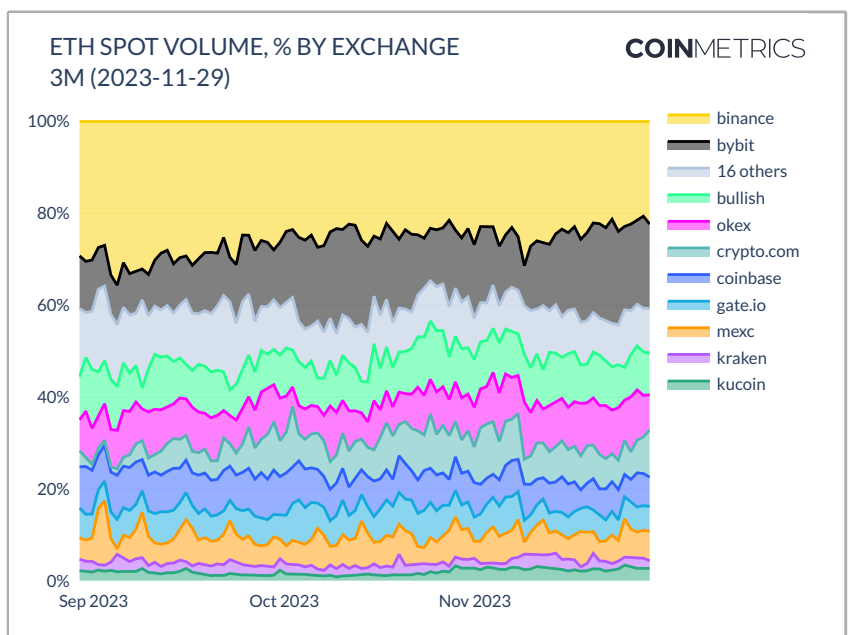
Top 10 exchanges by total BTC spot volume reported over past 3 months.

ASSET	90D CHANGE	90D AVERAGE	90D MAX	90D MIN
BINANCE	-48.39%	1,489,911,333	4,935,041,747	358,214,760
BYBIT	+99.84%	471,204,644	1,338,012,737	74,853,361
COINBASE	+43.57%	419,554,026	1,466,959,451	77,351,223
BULLISH	+9.04%	411,151,021	1,639,377,390	25,251,872
OKEK	+80.38%	351,168,677	1,420,181,268	52,180,872
MEXC	-54.05%	280,136,456	917,137,081	12,846,600
GATE.IO	+9.31%	212,070,325	1,185,199,996	26,494,540
CRYPTO.COM	+463.58%	197,735,774	722,196,174	13,540,346
UPBIT	-32.27%	148,137,414	691,230,794	37,417,272
KRAKEN	+14.74%	140,658,704	509,998,152	20,117,067

ETH SPOT VOLUME LEADERS

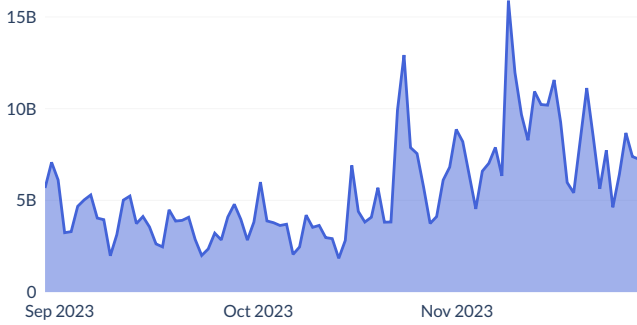
Top 10 exchanges by total ETH spot volume reported over past 3 months.

ASSET	90D CHANGE	90D AVERAGE	90D MAX	90D MIN
BINANCE	+4.36%	630,555,758	2,735,354,995	130,957,558
BYBIT	+131.85%	378,362,383	1,109,117,101	27,538,055
BULLISH	-0.30%	250,055,542	904,786,946	18,706,000
OKEK	+37.14%	226,811,121	1,091,551,826	27,377,158
CRYPTO.COM	+1,019.25%	185,039,957	573,597,036	10,143,569
COINBASE	-5.73%	178,883,018	683,092,379	27,793,110
GATE.IO	+47.39%	144,557,750	501,625,440	19,010,290
MEXC	+76.28%	135,184,443	265,148,160	13,839,534
KRAKEN	+1.88%	54,026,222	295,403,187	9,292,697
KUCCOIN	+100.17%	51,150,723	207,952,652	6,997,670

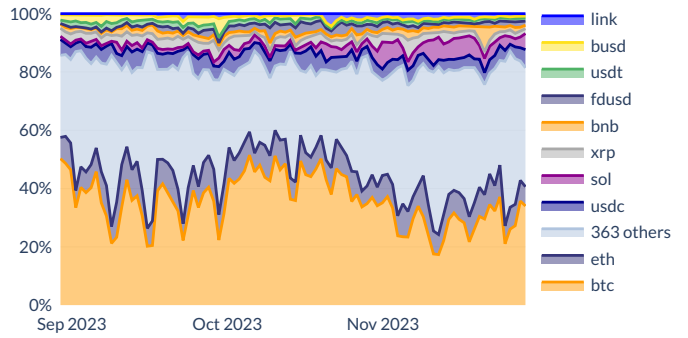


EXCHANGE SPOT VOLUME

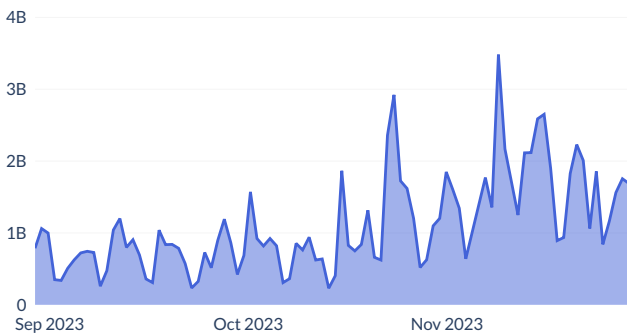
BINANCE DAILY USD SPOT VOLUME 3M (2023-11-29) COINMETRICS



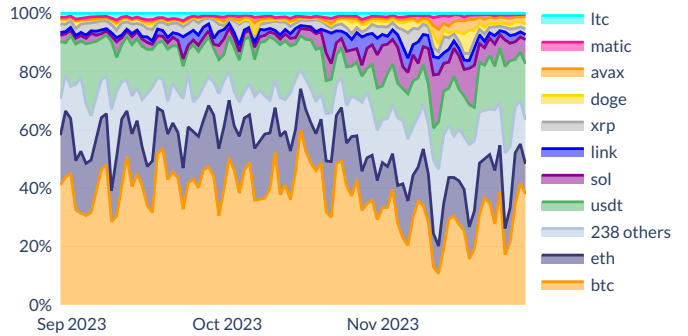
BINANCE SPOT VOLUME, % BY ASSET 3M (2023-11-29) COINMETRICS



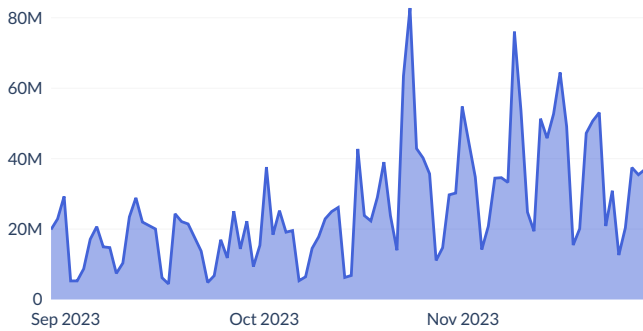
COINBASE DAILY USD SPOT VOLUME 3M (2023-11-29) COINMETRICS



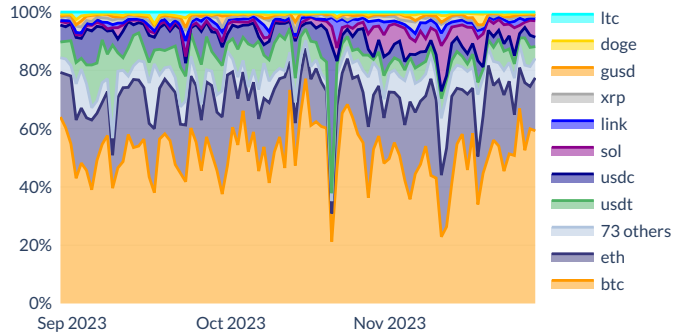
COINBASE SPOT VOLUME, % BY ASSET 3M (2023-11-29) COINMETRICS



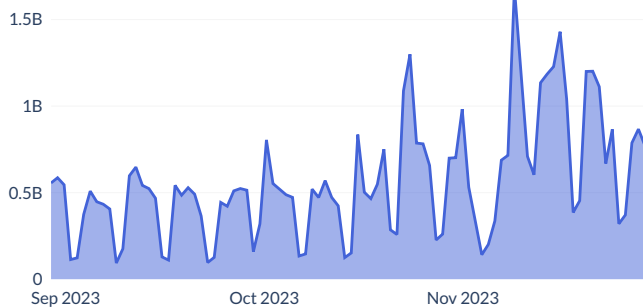
GEMINI DAILY USD SPOT VOLUME 3M (2023-11-29) COINMETRICS



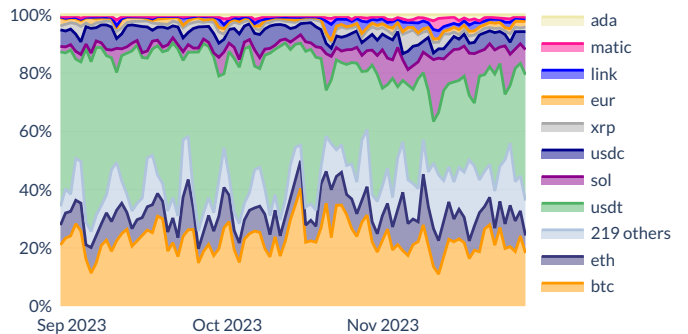
GEMINI SPOT VOLUME, % BY ASSET 3M (2023-11-29) COINMETRICS



KRAKEN DAILY USD SPOT VOLUME 3M (2023-11-29) COINMETRICS



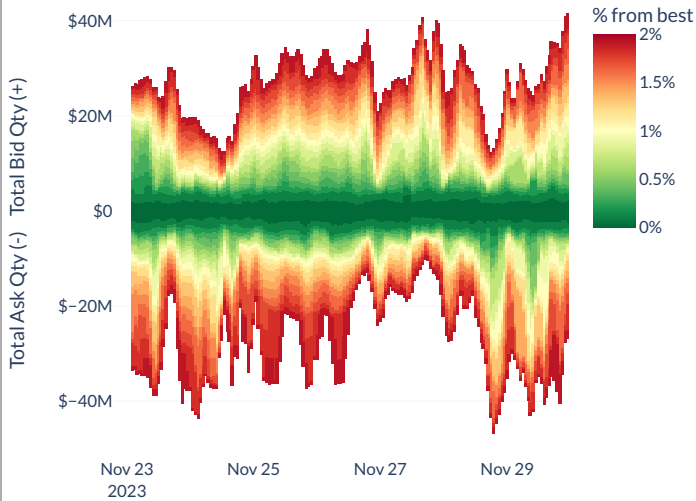
KRAKEN SPOT VOLUME, % BY ASSET 3M (2023-11-29) COINMETRICS



ORDER BOOK DEPTH

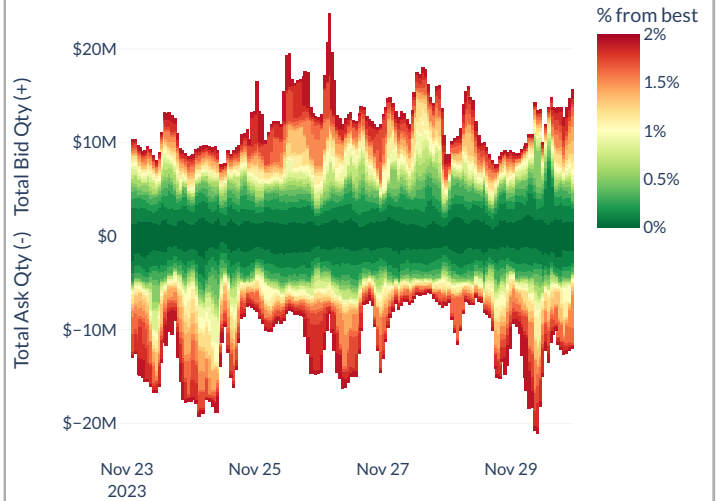
BINANCE BTC-USDT SPOT:
USD Depth Within 2% of Best Bid/Ask

COINMETRICS



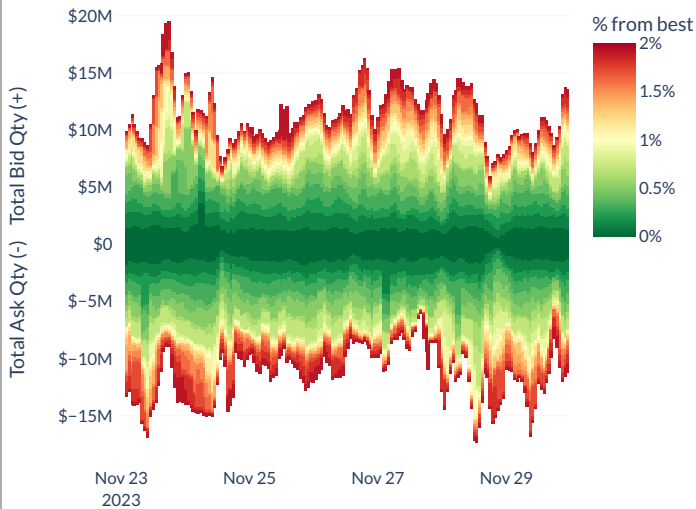
BINANCE ETH-USDT SPOT:
USD Depth Within 2% of Best Bid/Ask

COINMETRICS



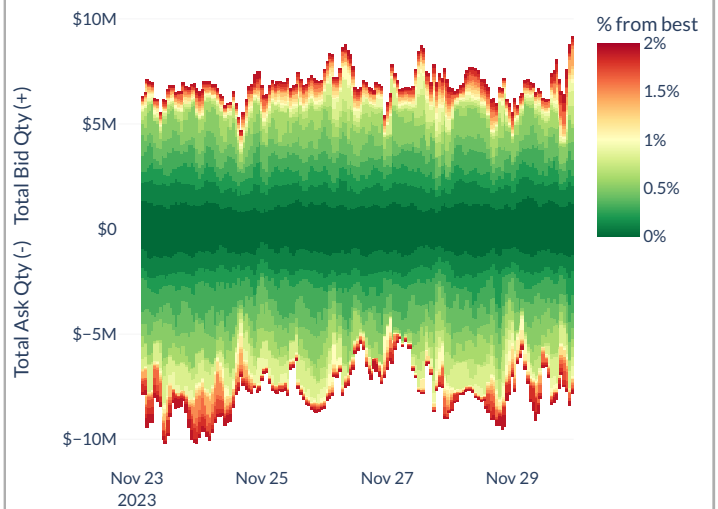
COINBASE BTC-USDT SPOT:
USD Depth Within 2% of Best Bid/Ask

COINMETRICS



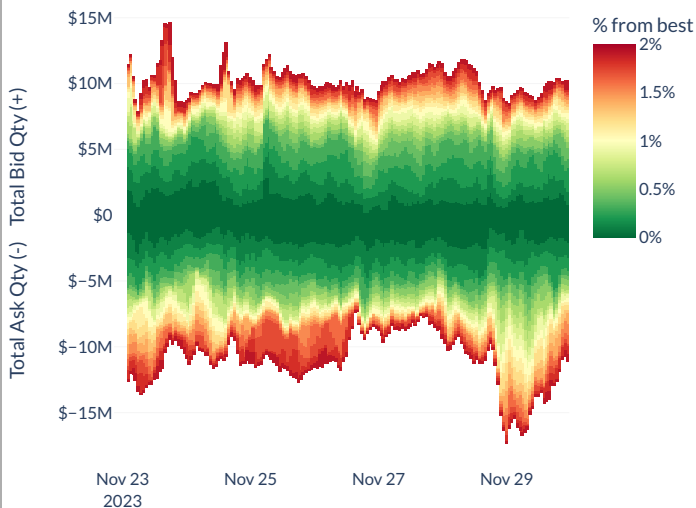
COINBASE ETH-USDT SPOT:
USD Depth Within 2% of Best Bid/Ask

COINMETRICS



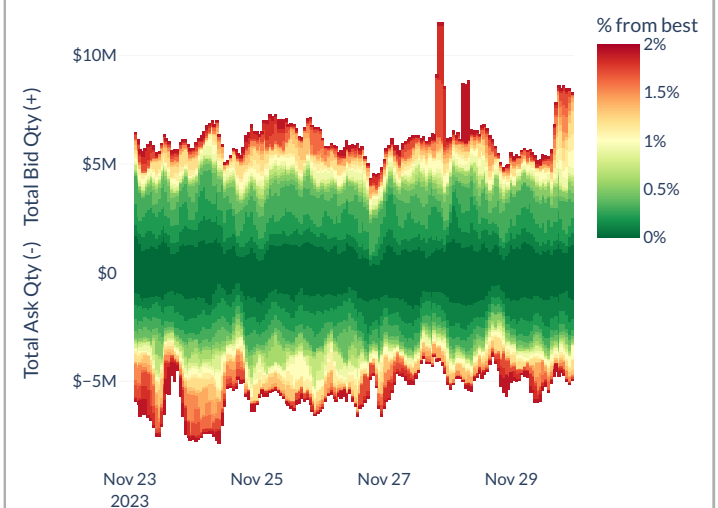
KRAKEN BTC-USDT SPOT:
USD Depth Within 2% of Best Bid/Ask

COINMETRICS

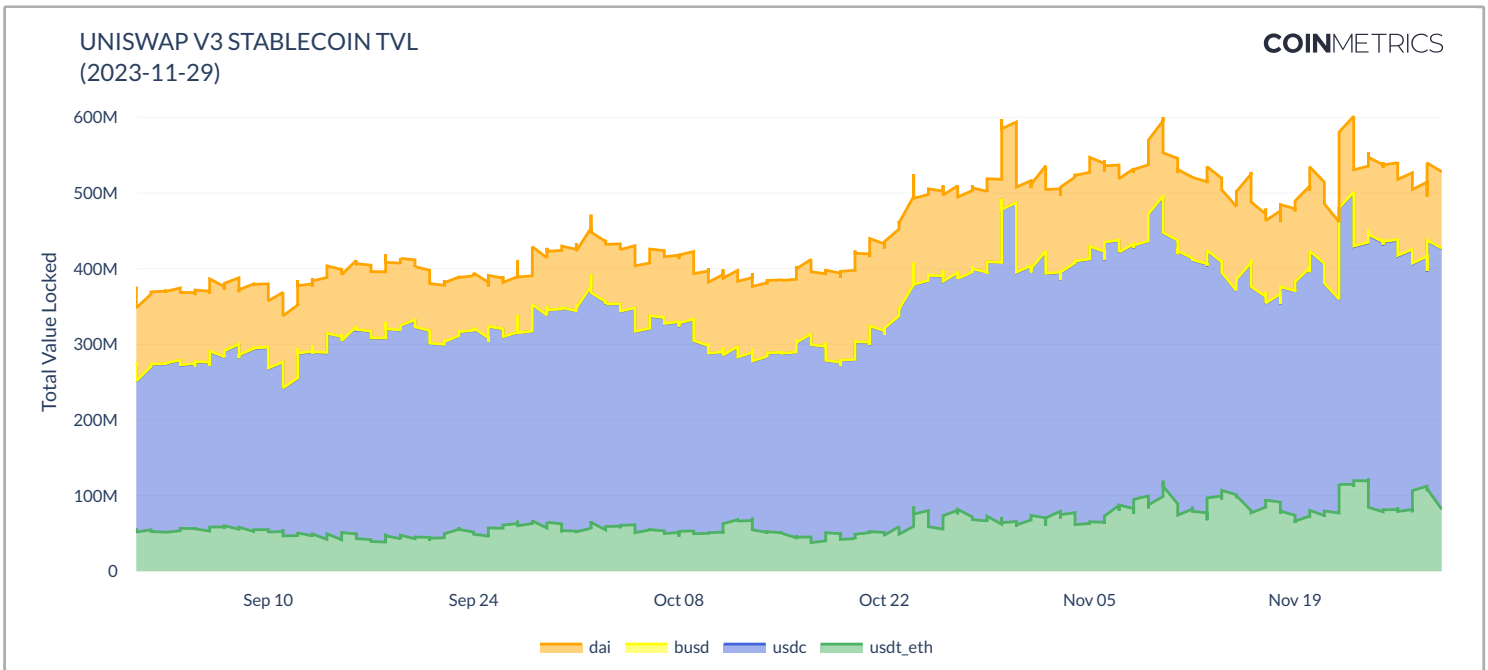
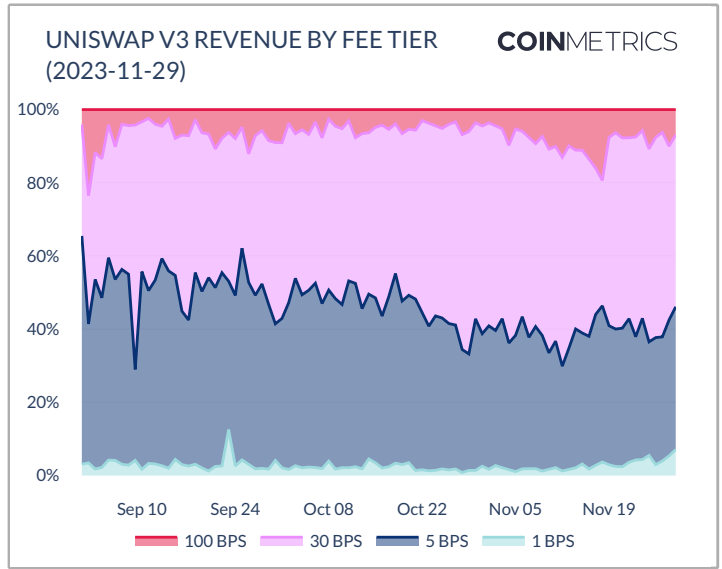
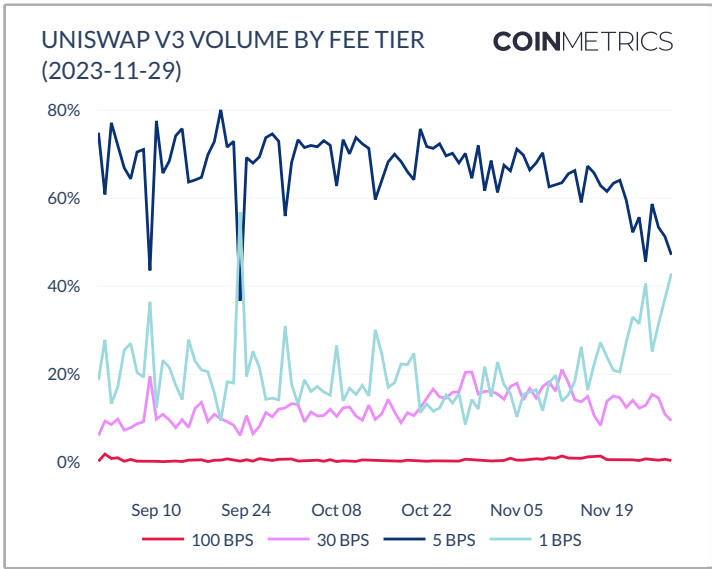
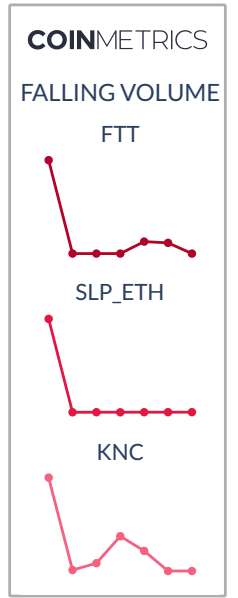
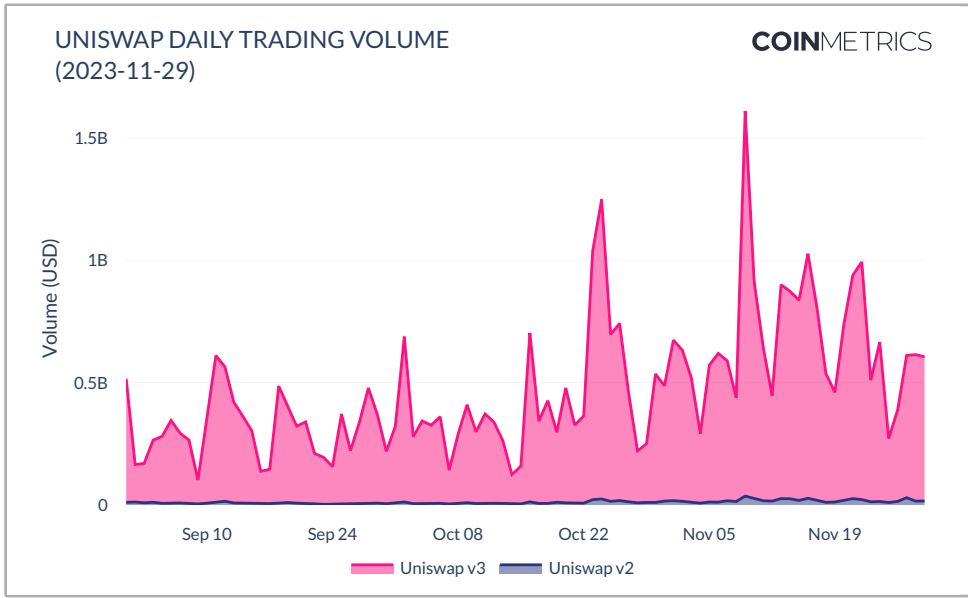


KRAKEN ETH-USDT SPOT:
USD Depth Within 2% of Best Bid/Ask

COINMETRICS



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 (2023-11-29)

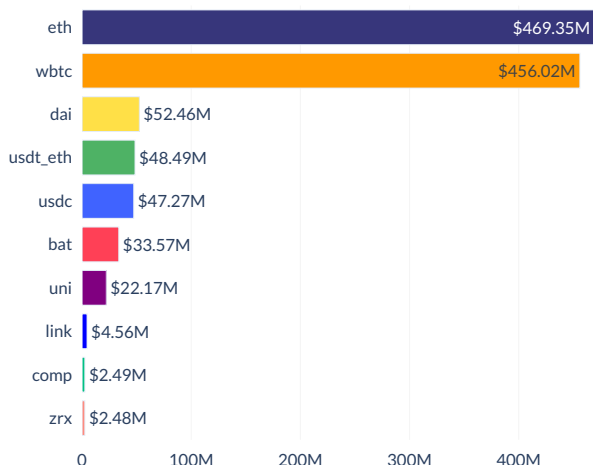
COINMETRICS



COMPOUND V2 BALANCE SHEET

PROTOCOL HEALTH RATIOS	VALUE	7D CHANGE
CURRENT RATIO	0.746805	-0.1%
DEBT TO ASSETS RATIO	0.968696	-0.07%
PROTOCOL UTILIZATION RATIO	0.285513	0.52%
LIQUID SUPPLY RATIO	0.746805	-0.1%
ASSETS AND LIABILITIES	VALUE	7D CHANGE
ASSETS TOTAL USD	\$1,575M	-1.87%
ASSETS TOTAL COUNT	19	0.0%
LIABILITIES TOTAL USD	\$1,525M	-1.94%
LIABILITIES TOTAL COUNT	19	0.0%
LOANS LENT TOTAL USD	\$435M	-1.43%
TVL TOTAL USD	\$1,139M	-2.04%
NET WORKING CAPITAL USD	-\$386M	-1.66%

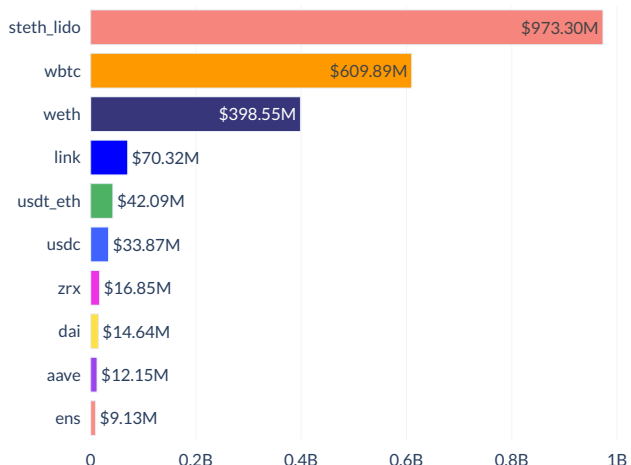
TOP 10 ASSETS BY TOTAL VALUE LOCKED (USD)



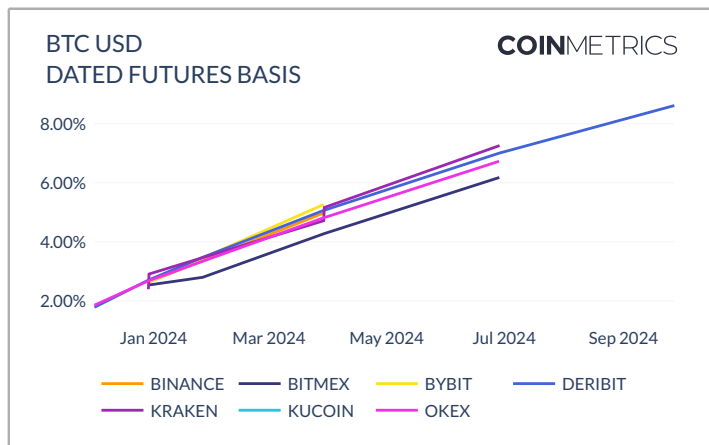
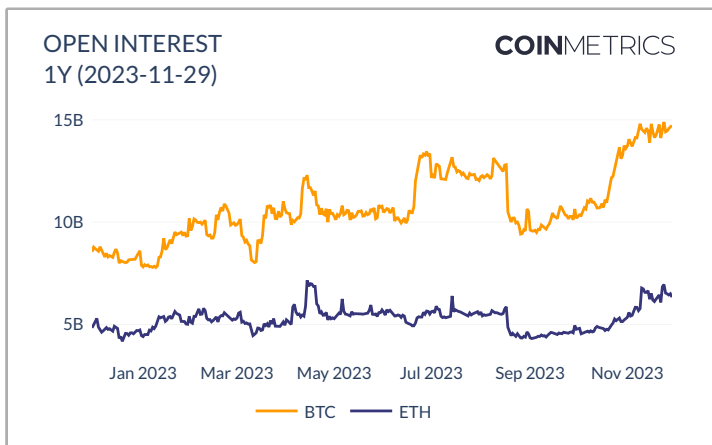
AAVE V2 BALANCE SHEET

PROTOCOL HEALTH RATIOS	VALUE	7D CHANGE
CURRENT RATIO	0.684805	0.5%
DEBT TO ASSETS RATIO	1.000284	0.0%
PROTOCOL UTILIZATION RATIO	0.314912	-1.06%
LIQUID SUPPLY RATIO	0.684805	0.5%
ASSETS AND LIABILITIES	VALUE	7D CHANGE
ASSETS TOTAL USD	\$3,250M	-1.85%
ASSETS TOTAL COUNT	52	0.0%
LIABILITIES TOTAL USD	\$3,251M	-1.85%
LIABILITIES TOTAL COUNT	52	0.0%
LOANS LENT TOTAL USD	\$1,024M	-2.9%
TVL TOTAL USD	\$2,226M	-1.37%
NET WORKING CAPITAL USD	-\$1,025M	-2.89%

TOP 10 ASSETS BY TOTAL VALUE LOCKED (USD)



FUTURES FEED



OPEN INTEREST

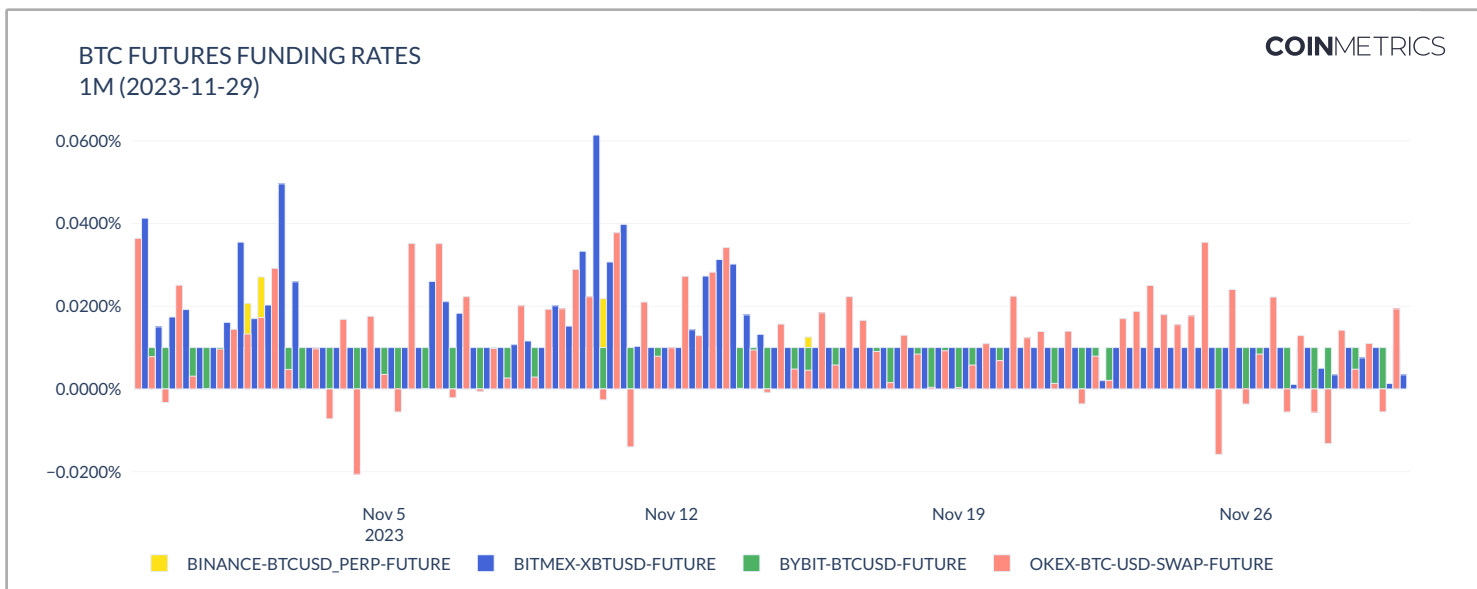
Sum of all reported open interest from futures markets in USD

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.29%	14,627,183,488	14,896,866,421	14,410,660,712
ETH	-7.46%	6,586,549,433	6,952,337,921	6,335,096,137
XRP	+7.44%	500,320,705	514,733,619	471,417,938
LINK	+1.08%	234,871,856	248,734,835	226,718,197
ADA	+8.84%	134,213,517	139,225,940	127,276,611
CRO	-5.51%	6,832,961	7,212,925	6,583,303
UNI	+4.75%	89,465,833	99,594,764	83,395,657
LTC	+1.70%	211,104,788	217,573,546	206,767,798
BCH	-2.69%	151,632,986	156,821,739	145,765,697

FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+84.52%	25,394,299,864	37,442,620,723	8,639,891,081
ETH	+4.26%	13,510,881,364	18,996,143,029	5,887,783,634
XRP	-10.92%	933,170,529	1,299,463,008	535,494,618
LINK	-8.06%	773,922,809	1,001,189,525	568,991,563
ADA	+33.70%	296,332,653	387,671,893	227,029,644
CRO	-28.20%	7,520,470	9,942,343	5,814,306
UNI	-61.91%	391,766,780	657,443,270	212,166,263
LTC	-39.73%	322,376,980	376,066,325	226,666,477
BCH	-8.19%	183,358,363	304,371,231	106,296,285



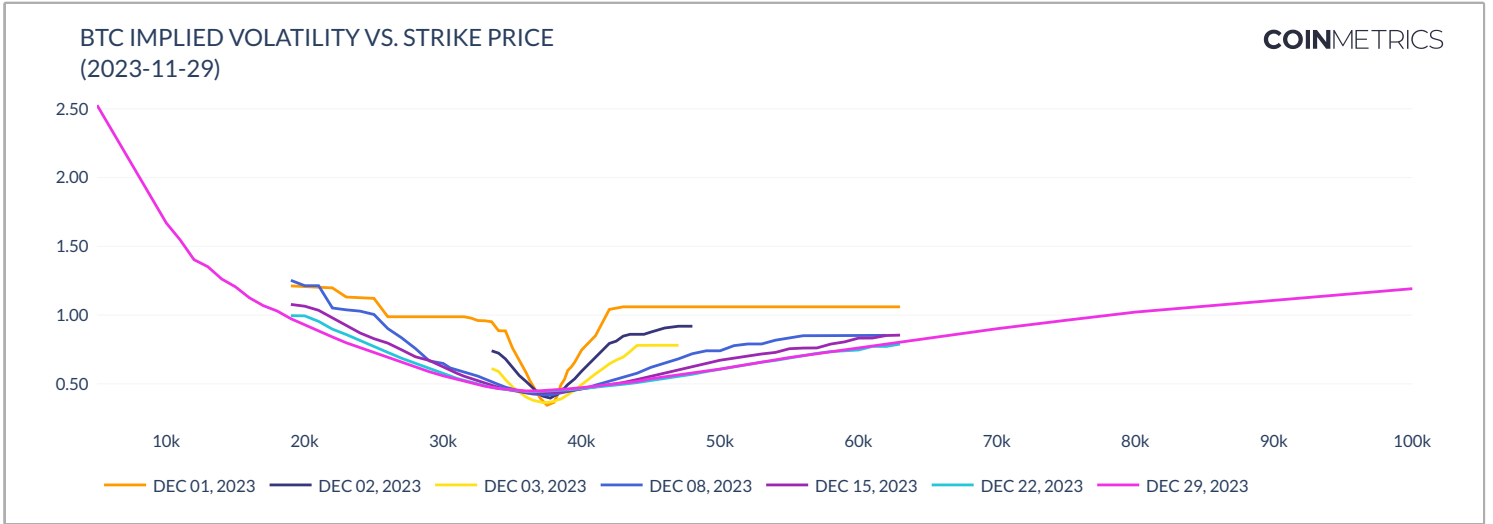
OPTIONS SNAPSHOT

BTC OPEN INTEREST

TOTAL	\$11,974,152,268
CALLS	\$8,430,137,965
PUTS	\$3,544,014,304

ETH OPEN INTEREST

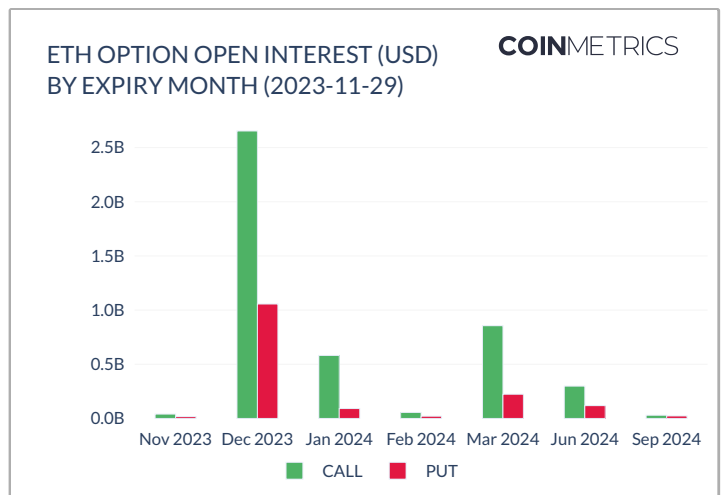
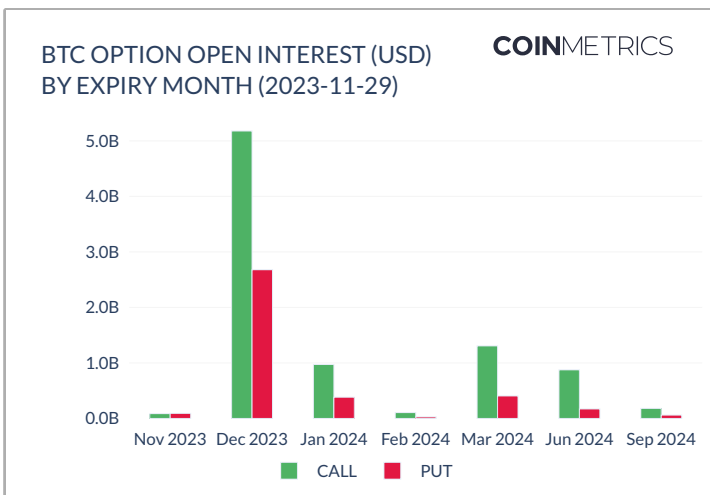
TOTAL	\$5,846,657,632
CALLS	\$4,350,239,268
PUTS	\$1,496,418,364



AT THE MONEY OPTIONS

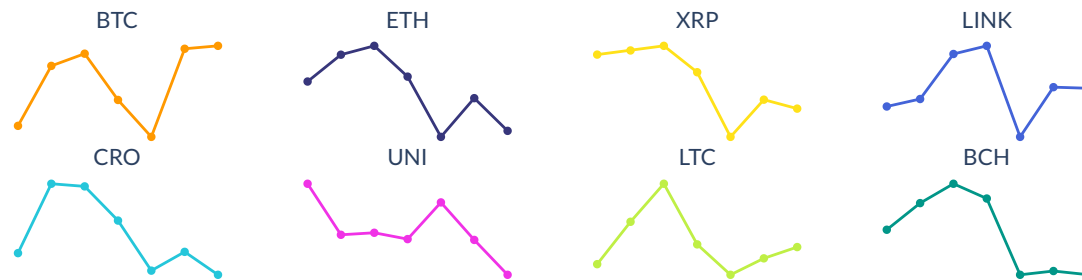
Market greeks, implied volatility, and mark contract prices for BTC options at or near strike price.

CALLS							PUTS							
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
13.0189	-86.83286	1.80059	0.60637	0.00028	0.3875	0.0231	BTC-30NOV23-37000	0.0001	0.3875	0.00028	-0.39363	-1.2391	-86.83286	13.0189
13.45402	-89.73504	1.58854	0.53352	0.00029	0.2934	0.0165	BTC-30NOV23-37250	0.0001	0.2934	0.00029	-0.46648	-1.47168	-89.73504	13.45402
13.43464	-89.60572	1.37348	0.46019	0.00029	0.2838	0.0104	BTC-30NOV23-37500	0.0005	0.2838	0.00029	-0.53997	-1.70777	-89.6008	13.4339
12.96941	-86.50281	1.16152	0.38835	0.00028	0.2981	0.0054	BTC-30NOV23-37750	0.0022	0.2981	0.00028	-0.61165	-1.93978	-86.50281	12.96941
36.17166	-32.8854	10.61215	0.51504	0.00011	0.4158	0.0257	BTC-1DEC23-37000	0.0023	0.4157	0.00011	-0.48505	-11.68992	-32.88493	36.17114
8.15577	-105.38915	1.4243	0.77264	0.00024	0.4076	0.0203	BTC-1DEC23-37250	0.0036	0.4076	0.00024	-0.22802	-0.44512	-105.55146	8.16833
36.0188	-32.74643	9.53209	0.46048	0.00011	0.4043	0.0156	BTC-1DEC23-37500	0.0055	0.4043	0.00011	-0.53942	-13.06712	-32.74797	36.02049
10.14594	-131.14468	1.18136	0.63664	0.00029	0.4044	0.0116	BTC-1DEC23-37750	0.008	0.4044	0.00029	-0.36362	-0.71237	-131.17283	10.14812
9.40976	-62.76081	2.4295	0.80928	0.0002	0.4094	0.028	BTC-2DEC23-37000	0.0044	0.4094	0.0002	-0.19072	-0.61019	-62.76081	9.40976
10.88149	-72.57685	2.27436	0.75474	0.00023	0.4092	0.0232	BTC-2DEC23-37250	0.0062	0.4091	0.00023	-0.24526	-0.78587	-72.57685	10.88149



MARKET CAPITALIZATION

MARKET CAPITALIZATION, 7 DAY TREND



COINMETRICS

MARKET CAP

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+1.46%	735,269,998,296	740,147,934,698	728,003,902,581
ETH	-1.46%	257,029,469,730	260,340,599,909	253,393,529,899
XRP	-1.82%	61,499,933,806	62,236,851,583	60,338,909,994
LINK	+0.81%	14,514,853,110	14,785,693,676	14,204,066,431
ADA	-0.60%	13,335,944,026	13,648,468,003	13,065,553,960
CRO	-1.71%	9,397,823,353	9,768,428,974	9,102,866,109
UNI	-5.47%	6,193,528,412	6,369,049,413	6,020,886,895
LTC	+0.70%	5,185,670,506	5,308,269,411	5,116,787,206
BCH	-0.90%	4,406,215,968	4,450,530,560	4,369,668,889
FTT	-4.65%	1,348,868,178	1,435,257,739	1,186,311,068

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+1.46%	516,385,056,756	519,940,131,533	511,184,911,856
ETH	-1.71%	225,145,195,299	228,210,433,741	221,888,845,246
XRP	-1.66%	29,212,433,389	29,548,621,506	28,646,306,212
LINK	+0.81%	7,909,795,666	8,057,120,839	7,740,738,580
ADA	-0.63%	11,900,950,067	12,182,685,113	11,657,786,027
CRO	-1.72%	891,263,347	926,413,744	863,274,585
UNI	-5.43%	1,603,564,877	1,648,482,201	1,559,034,771
LTC	+0.69%	4,381,791,200	4,485,481,766	4,323,183,542
BCH	-1.02%	2,928,056,972	2,957,603,090	2,902,374,007
FTT	-4.65%	1,348,868,178	1,435,257,739	1,186,311,068

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	+0.40%	411,544,095,221	412,466,630,686	410,840,287,521
ETH	+0.07%	155,255,269,408	155,418,025,858	154,930,947,974
XRP	-0.05%	53,523,969,873	53,564,497,609	53,473,069,755
LINK	+2.85%	9,581,308,077	9,765,333,212	9,494,291,436
ADA	+0.27%	15,812,860,685	15,833,515,834	15,789,061,402
CRO	+0.00%	20,874,807,792	20,875,100,867	20,874,614,232
UNI	+0.89%	7,991,617,242	8,048,740,272	7,966,309,583
LTC	-0.06%	6,722,491,213	6,725,475,433	6,718,173,442
BCH	-0.38%	4,722,455,320	4,729,011,249	4,708,320,401
FTT	+0.17%	783,443,647	785,743,783	779,776,432

MARKET VALUE TO REALIZED VALUE

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

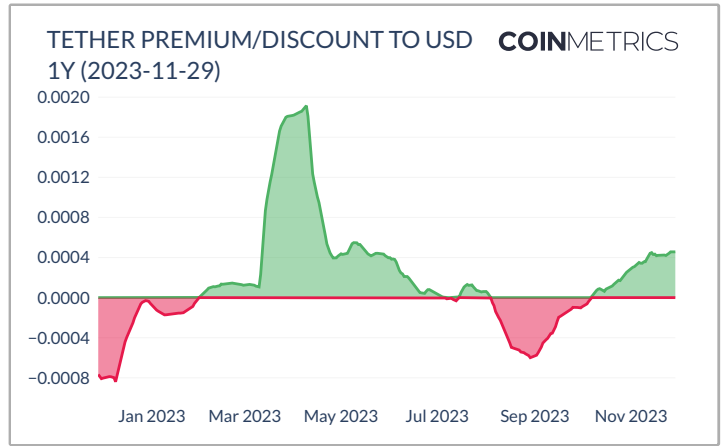
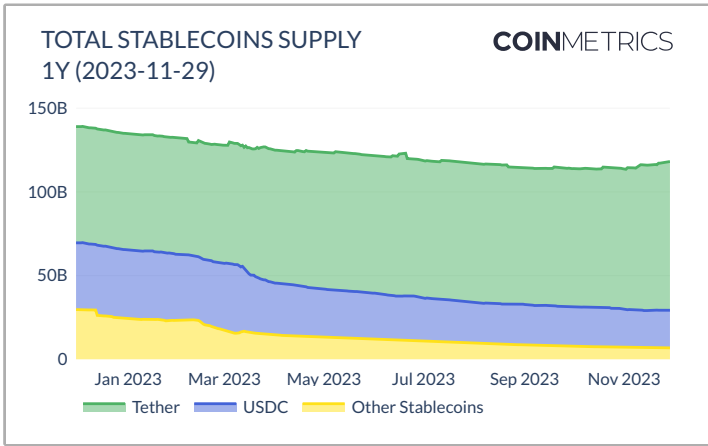
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+1.06%	1.79	1.80	1.77
ETH	-1.53%	1.66	1.68	1.63
XRP	-1.77%	1.15	1.16	1.13
LINK	-1.99%	1.52	1.55	1.49
ADA	-0.87%	0.84	0.86	0.83
CRO	-1.71%	0.45	0.47	0.44
UNI	-6.30%	0.78	0.80	0.75
LTC	+0.76%	0.77	0.79	0.76
BCH	-0.53%	0.93	0.94	0.92
FTT	-4.81%	1.72	1.83	1.52

MARKET VALUE TO REALIZED VALUE 1Y (2023-11-29)



COINMETRICS

STABLECOINS REPORT



MARKET CAPITALIZATION

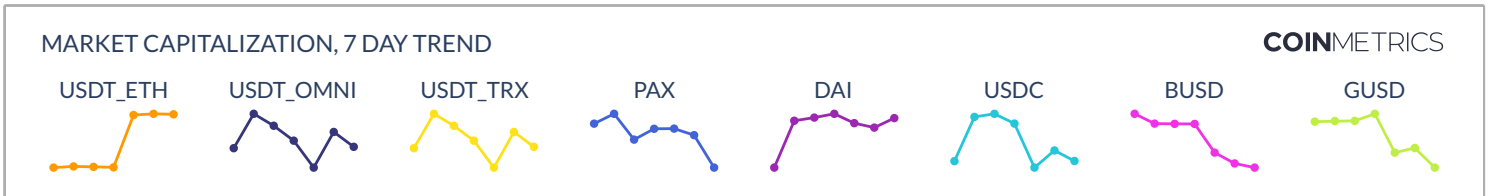
USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+2.50%	40,458,343,151	41,034,824,795	40,023,990,190
USDT_OMNI	+0.00%	888,361,182	888,719,609	887,962,110
USDT_TRX	+0.00%	47,848,970,762	47,868,276,368	47,827,475,899
PAX	-0.77%	446,052,911	447,619,212	443,424,347
DAI	+0.79%	3,660,781,088	3,668,411,369	3,637,182,179
USDC	+0.00%	22,556,208,583	22,694,173,586	22,431,621,986
BUSD	-3.76%	1,722,596,243	1,752,755,959	1,686,821,884
GUSD	-0.57%	150,907,323	151,308,111	150,294,366

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+19.32%	3,368,774,305	4,669,470,488	1,373,960,556
USDT_OMNI	-99.49%	202,362	1,243,786	6,288
USDT_TRX	+9.60%	9,126,268,946	11,109,594,665	4,897,587,598
PAX	+341.68%	3,847,216	9,978,395	539,643
DAI	-0.85%	1,351,359,490	2,581,435,133	502,474,547
USDC	+25.80%	2,684,305,802	3,905,471,669	934,601,535
BUSD	+154.53%	43,850,311	181,102,262	5,162,069
GUSD	-15.72%	1,381,692	3,106,186	443,866



TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.09%	114,225	126,837	91,665
USDT_OMNI	-37.50%	16	30	7
USDT_TRX	+3.29%	1,698,504	1,817,113	1,441,289
PAX	+95.24%	90	164	39
DAI	+7.46%	3,518	3,898	2,918
USDC	+10.87%	39,066	42,749	33,467
BUSD	+37.61%	453	633	342
GUSD	+248.00%	327	965	56

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

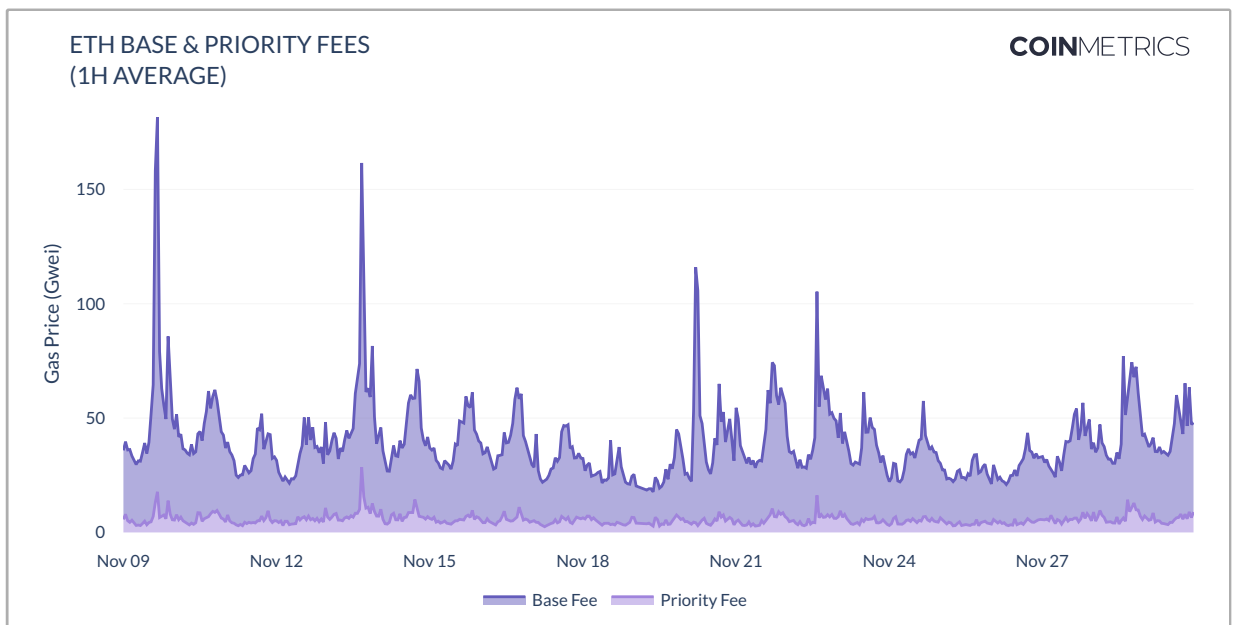
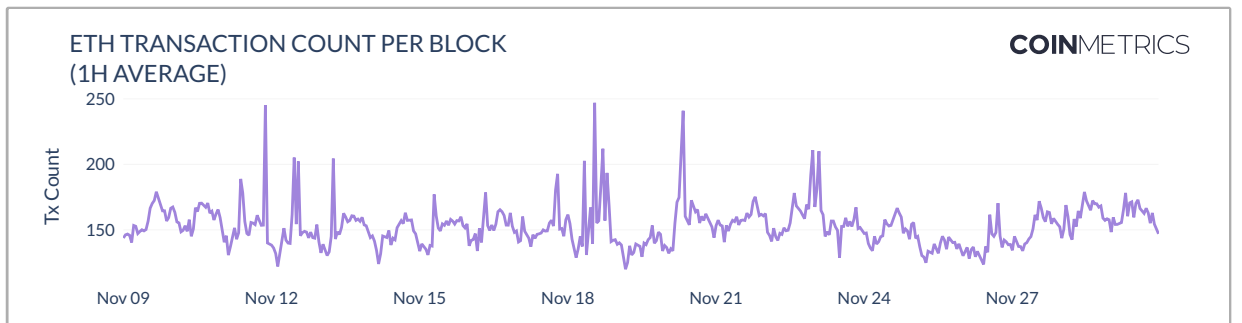
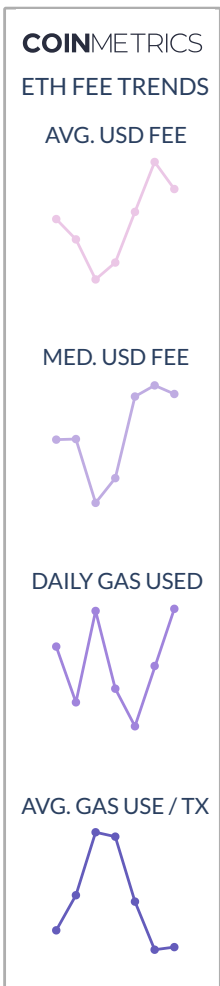
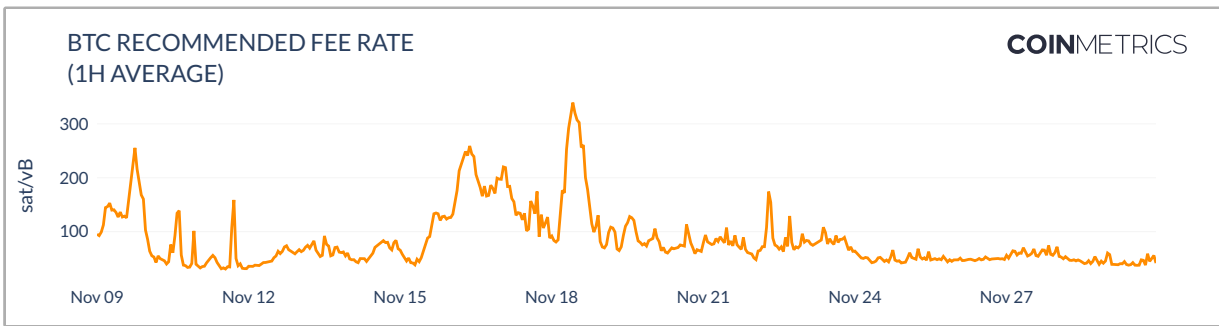
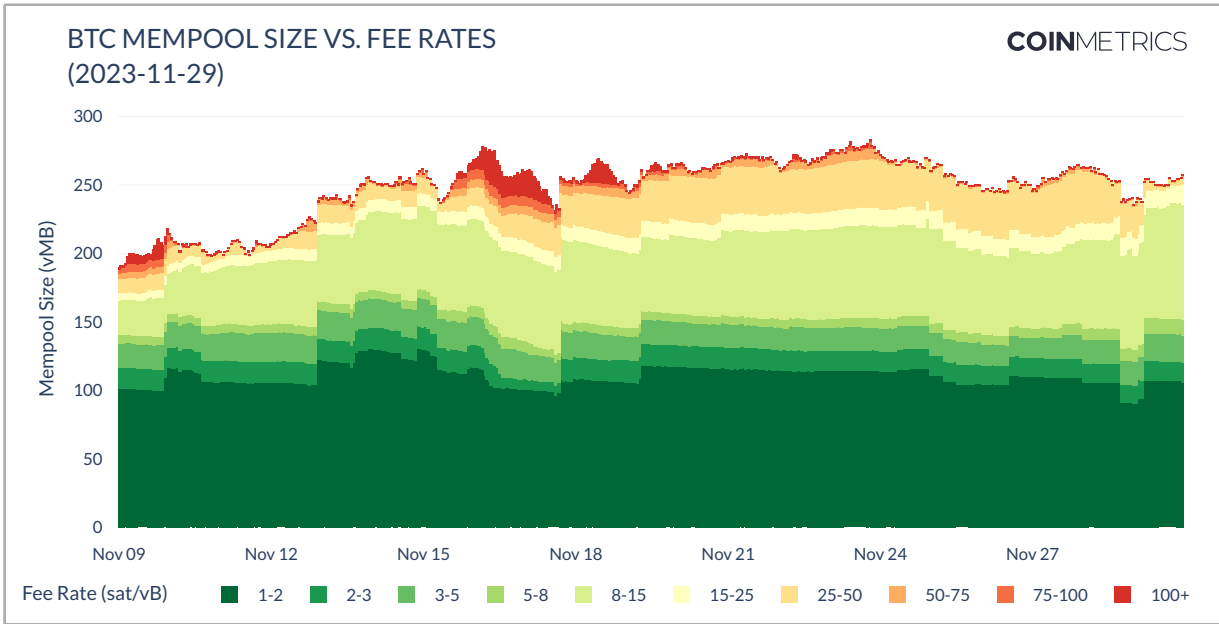
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+25.37%	699	851	500
USDT_OMNI	-95.10%	439	1,000	49
USDT_TRX	+0.00%	205	224	200
PAX	+226.61%	1,756	3,585	608
DAI	+19.68%	2,288	2,779	1,324
USDC	+33.08%	1,111	1,411	824
BUSD	+248.71%	594	1,085	200
GUSD	+20.24%	749	2,990	23

VELOCITY

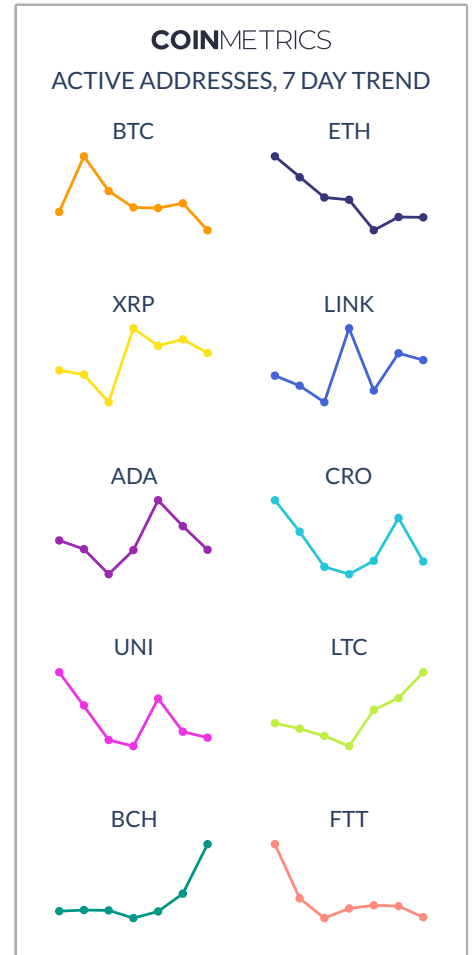
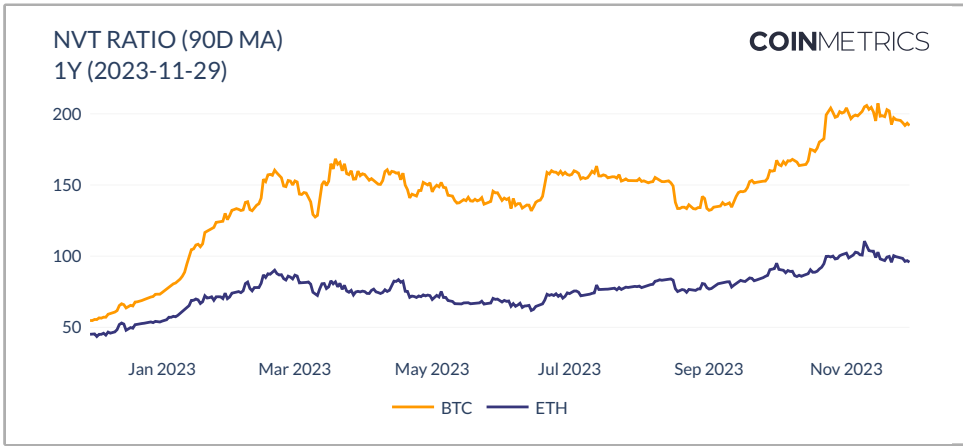
Number of times that an average native unit among the active supply has been transferred in the past 1 year

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-2.95%	36.70	37.20	36.07
USDT_OMNI	-17.28%	28.53	32.43	26.83
USDT_TRX	+5.40%	72.63	73.32	69.57
PAX	-1.70%	40.74	41.05	40.30
DAI	-0.67%	141.10	142.26	140.22
USDC	-2.56%	102.92	104.62	101.94
BUSD	-1.00%	70.93	71.82	70.24
GUSD	-0.19%	19.02	19.09	18.99

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	-5.67%	1,002,341	1,136,807	915,309
ETH	-7.91%	446,218	472,551	427,314
XRP	+5.31%	25,366	27,672	22,140
LINK	+8.63%	4,511	5,546	3,748
ADA	-5.01%	37,710	46,102	31,042
CRO	-34.21%	402	535	314
UNI	-45.36%	1,211	1,788	872
LTC	+17.08%	274,692	314,349	247,859
BCH	+130.08%	48,981	92,425	34,742
FTT	-57.42%	319	566	237

FREE FLOAT SUPPLY

Sum of native units readily available to trade in open markets

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.03%	13,732,707	13,738,002	13,730,735
ETH	-0.05%	109,458,608	109,481,524	109,413,179
XRP	+0.16%	47,494,459,784	47,549,214,456	47,470,037,728
LINK	-0.00%	544,945,094	544,966,374	544,926,807
ADA	-0.00%	30,891,179,662	30,896,852,484	30,885,174,551
CRO	-0.01%	9,483,720,549	9,484,259,337	9,483,546,995
UNI	+0.04%	258,910,157	258,937,728	258,827,039
LTC	+0.02%	62,458,661	62,468,969	62,453,824
BCH	-0.09%	13,004,535	13,013,267	12,998,920
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	-38.87%	526,766	624,489	358,838
ETH	+2.54%	1,078,733	1,155,016	985,612
XRP	-11.27%	974,822	1,068,009	843,625
LINK	+26.91%	6,217	8,149	4,744
ADA	-0.95%	57,744	78,669	46,371
CRO	-35.10%	440	584	355
UNI	-49.69%	1,708	2,608	1,128
LTC	+8.20%	144,019	161,106	127,688
BCH	+790.58%	31,013	123,595	12,246
FTT	-57.87%	556	966	337

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+23.44%	5,329,932,506	6,772,285,734	3,427,136,581
ETH	-15.19%	3,138,049,158	3,825,688,787	1,995,049,822
XRP	+0.30%	442,865,039	619,586,019	172,614,856
LINK	+81.38%	182,237,333	395,936,083	68,490,406
ADA	+18.83%	6,377,899,907	7,521,785,662	5,337,398,098
CRO	-75.80%	1,062,643	1,911,383	462,594
UNI	-72.05%	41,050,143	74,672,789	10,928,358
LTC	-0.00%	78,473,947	82,994,015	65,771,789
BCH	+33.28%	28,317,284	51,458,247	14,462,756
FTT	-63.41%	10,911,335	18,024,789	6,439,443

ADDRESSES ≥ \$1

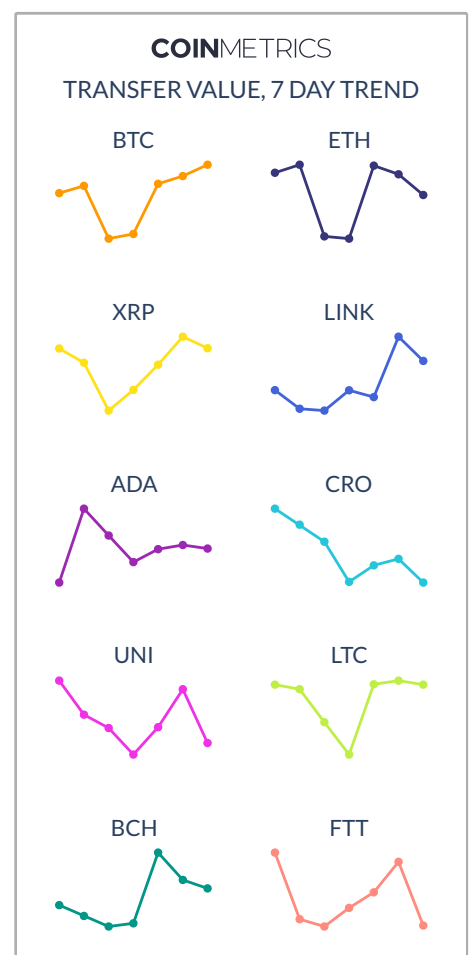
Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.29%	43,411,324	43,464,107	43,330,862
ETH	-0.13%	64,607,146	64,798,784	64,392,274
XRP	+0.21%	4,882,766	4,888,127	4,877,737
LINK	+0.41%	565,526	566,756	564,458
ADA	+0.09%	3,673,607	3,678,397	3,668,872
CRO	-0.07%	154,669	154,936	154,445
UNI	-0.20%	295,887	296,250	295,660
LTC	-1.05%	2,404,773	2,416,485	2,381,242
BCH	-0.04%	4,531,052	4,539,955	4,525,283
FTT	+0.25%	23,971	24,015	23,891

ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.46%	82,206	82,388	81,921
ETH	-1.00%	11,526	11,636	11,411
XRP	-0.83%	1,322	1,335	1,309
LINK	-0.98%	710	719	694
ADA	+0.00%	1,022	1,040	1,008
CRO	+0.00%	43	45	42
UNI	-1.29%	309	310	306
LTC	+1.09%	462	470	455
BCH	+0.00%	340	342	338
FTT	-6.90%	28	31	26



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
- **CMBISCP:** CMBI Smart Contracts Platform Sector Even
- **CMBISCE:** CMBI Specialized Coins Sector Even
- **CMBITVCE:** 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 11/26/2023 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 11/26/2023 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 address 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.