STATE OF THE MARKET

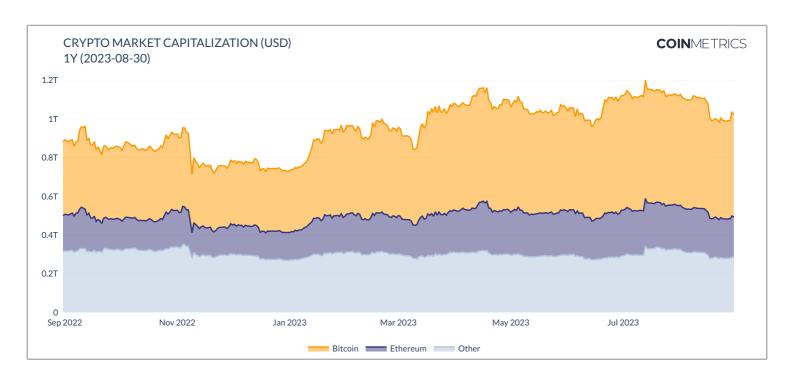
AUG. 24 - 30, 2023

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



MARKET SUMMARY

After a grueling year spent in the courts, Grayscale's grapple with the government has finally paid off. Following the SEC's June 2022 denial of the asset manager's application to convert the Grayscale Bitcoin Trust (GBTC) into a spot ETF, Grayscale sued the regulator, with CEO Michael Sonnenshein stating the firm "vehemently disagreed" with the Commission's ruling. On Tuesday, a 3-judge panel in the D.C. Court of Appeals concurred, siding with Grayscale and vacating the SEC rejection order on the grounds of the regulator's "arbitrary and capricious" reasoning. Though this development doesn't necessarily guarantee Grayscale's ETF conversion bid will succeed, it does force the SEC to more thoroughly "explain its different treatment of similar products," with their rationale for past approvals of futures ETFs being called into question. Given the SEC's massive legal (and public relations) loss, Bloomberg analysts now peg the odds of a 2023 spot ETF approval at 75 percent. In any case, the ruling improved spirits in the spot market, with Bitcoin briefly wicking above \$28K after a week spent near the \$26K level. A few days earlier, the U.S. Treasury ruined thousands of lawyers' weekends with a late-Friday release of a 282-page tax proposal, linked to ambiguous rules outlined in the 2021 Infrastructure Investment and Jobs Act. Focused on precisely defining the term "broker," the pending policies would likely force payment processors, wallet providers, and (most troublingly) decentralized exchanges to file a "1099-DA," compelling these platforms & services to gather personal data from their users beginning in 2025. Notably, miners appear to be exempt from these reporting requirements, as the simple act of receiving fees for validating transactions doesn't meet the definition of a 'middleman' or 'broker' in the eyes of the law. Despite the Treasury's affront, decentralized exchanges (and crypto devs writ large) scored a win in Risley v. Universal Navigation Inc., a.k.a. Uniswap Labs. Last April, crypto trader Nessa Risley filed a class action suit against Uniswap, claiming the protocols' developers were responsible for losses sustained in various rug pulls related to tokens like Matrix Samurai (MXS), Rocket Bunny (BUNNY), and Alphawolf Finance (AWF). In response, SDNY District Judge Falia dismissed the complaint in full, likening the lawsuit to suing self-driving car developers for "use of the car to commit a traffic violation or to rob a bank." As always, macro matters remain in focus—at the Fed's annual Jackson Hole retreat, Chairman Powell noted that "although inflation has moved down from its peak... it remains too high," and the central bank intends "to hold policy at a restrictive level" until inflation is in a sustainable downtrend. While elevated rates aren't the most amicable environment for risk assets, the crypto industry has seen significant steps towards regulatory clarity, setting the stage for a new wave of institutional interest as an inevitable ETF approval edges closer.

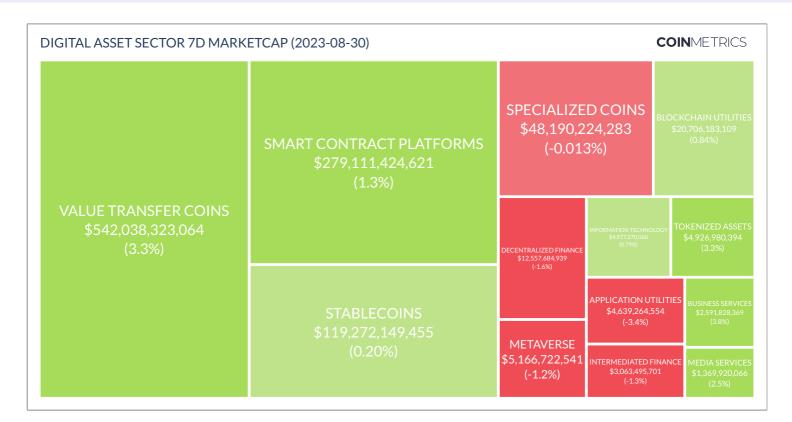


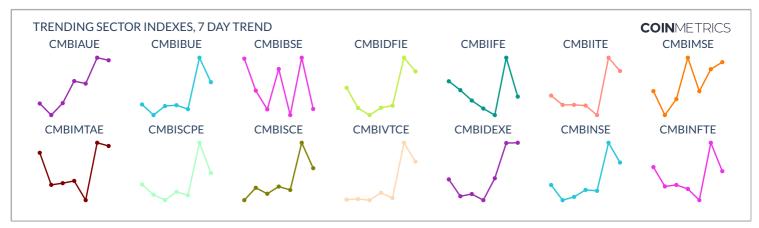
PRICE (CMBI CONSTITUENTS)

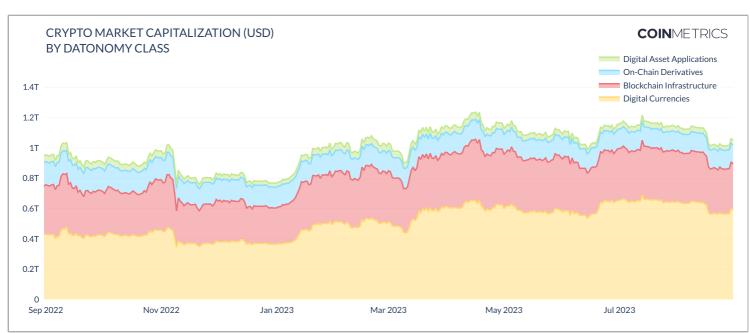
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
втс	\$27,241.05	+4.62%	\$27,897.32	\$25,972.52	+37.39%	\$31,644.02	\$15,799.60
ETH	\$1,702.80	+3.22%	\$1,737.64	\$1,644.97	+9.07%	\$2,129.88	\$1,103.83
SOL	\$20.71	-1.25%	\$21.59	\$20.22	-33.11%	\$37.68	\$8.35
DOT	\$4.55	+3.06%	\$4.69	\$4.41	-35.41%	\$7.74	\$4.27
ADA	\$0.26	-0.37%	\$0.28	\$0.26	-41.63%	\$0.51	\$0.24
DOGE	\$0.07	+4.18%	\$0.07	\$0.06	+6.03%	\$0.14	\$0.06
TRX	\$0.08	-1.24%	\$0.08	\$0.08	+20.64%	\$0.08	\$0.05
BNB	\$222.87	+2.65%	\$227.53	\$216.51	-19.05%	\$353.50	\$208.48
AVAX	\$10.38	+2.82%	\$10.86	\$10.00	-44.80%	\$22.04	\$9.92
XLM	\$0.12	-2.48%	\$0.12	\$0.12	+16.28%	\$0.17	\$0.07
CMBI10	\$2,831.24	+3.83%	\$2,897.66	\$2,719.73	+17.39%	\$3,398.54	\$1,838.40

ASSET CLASSES





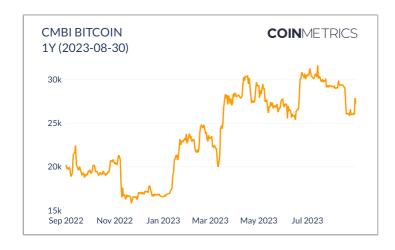


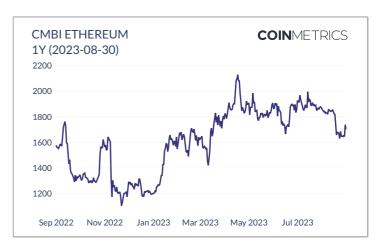
INDEX ROUNDUP

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
СМВІВТС	\$27,241.05	+4.62%	\$27,897.32	\$25,972.29	+37.39%	\$31,644.02	\$15,799.60
СМВІВТСТ	\$29,267.47	+4.62%	\$29,972.55	\$27,904.32	+37.39%	\$33,997.97	\$16,974.91
СМВІЕТН	\$1,702.80	+3.22%	\$1,737.64	\$1,644.97	+9.07%	\$2,129.88	\$1,103.83
CMBIETHT	\$1,848.55	+3.22%	\$1,886.37	\$1,785.77	+9.07%	\$2,312.19	\$1,198.31



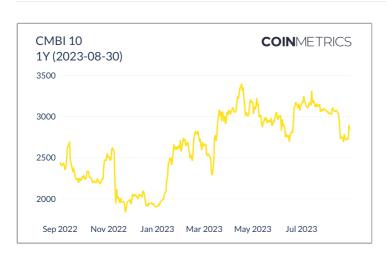




MULTI ASSET INDEXES

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

INDEX	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
CMBI10	\$2,831.24	+3.83%	\$2,897.66	\$2,719.73	+17.39%	\$3,398.54	\$1,838.40
CMBI10E	\$4,072.06	+1.49%	\$4,193.03	\$3,988.85	-23.23%	\$6,420.90	\$3,409.70
CMBI10EX	\$6,033.77	+2.69%	\$6,169.80	\$5,853.27	-4.40%	\$7,991.44	\$4,562.49
CMBI10M	\$10,156.48	+0.00%	\$10,156.48	\$10,156.48	-28.27%	\$14,231.75	\$9,310.27
CMBIBE	\$13,909.06	+4.12%	\$14,226.08	\$13,329.17	+26.48%	\$16,210.93	\$8,387.96





MARKET MOVEMENT

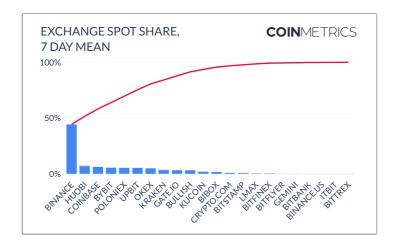
TRADING DIARY, 7 DAY

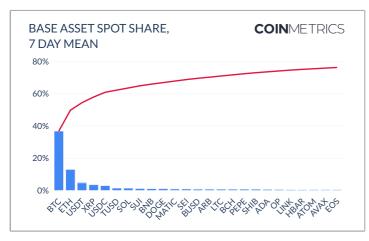
ADVANCING VOLUME \$79,817,978,730

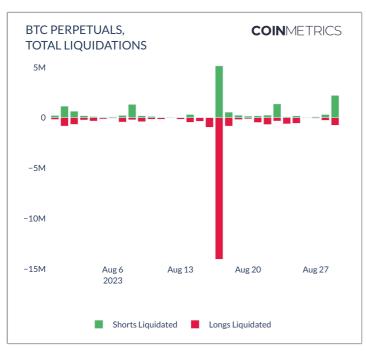
DECLINING VOLUME \$13,584,172,780

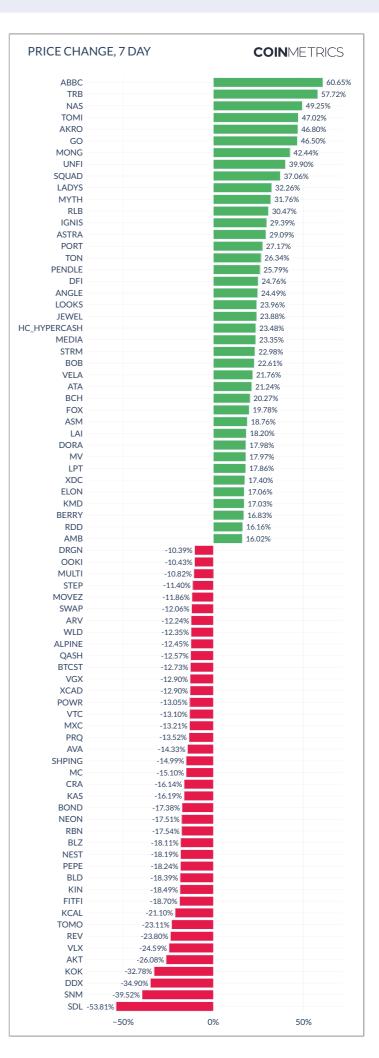
ADVANCES 466

DECLINES 261

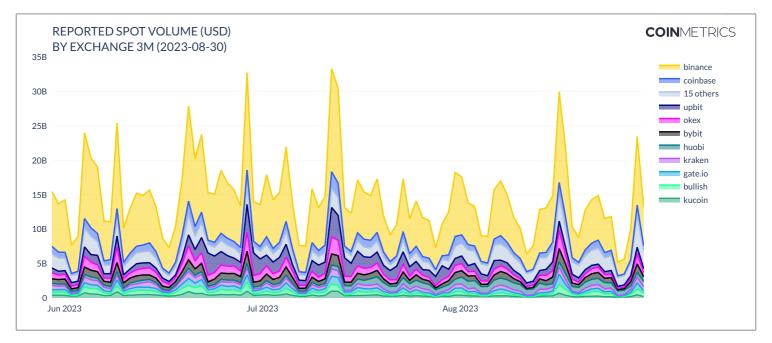


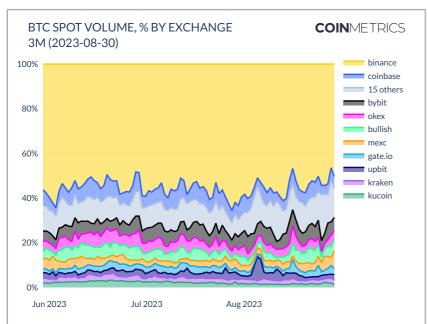






AGGREGATE VOLUME





BTC SPOT VOLUME LEADERS

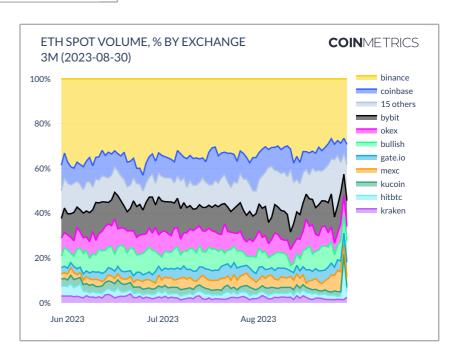
Top 10 exchanges by Bitcoin (BTC) spot volume reported over past 3 months.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	+29.51%	2,397,870,787	5,433,128,137	738,328,024
COINBASE	+10.99%	274,554,201	673,371,574	57,417,182
BYBIT	+23.49%	304,623,601	697,662,641	66,394,036
OKEX	+19.20%	191,502,593	609,396,962	34,408,901
BULLISH	+31.17%	231,967,079	560,686,442	32,777,261
MEXC	+196.98%	230,797,342	491,056,892	55,144,357
GATE.IO	+45.00%	159,368,604	458,215,527	21,779,417
UPBIT	+131.14%	88,342,459	211,415,603	25,144,337
KRAKEN	+43.61%	94,671,293	250,433,633	23,017,987
KUCOIN	+17.88%	83,648,355	231,070,608	24,085,265

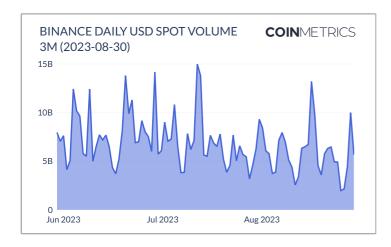
ETH SPOT VOLUME LEADERS

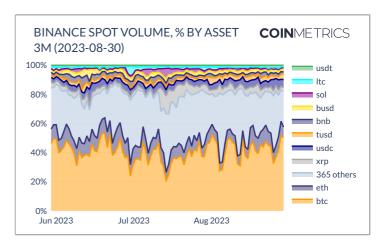
Top 10 exchanges by Ethereum (ETH) spot volume reported over past 3 months.

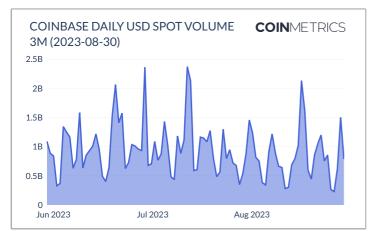
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	-8.97%	469,655,778	1,055,909,728	162,817,581
COINBASE	-13.14%	135,702,775	272,383,656	38,396,559
BYBIT	-22.66%	203,035,908	374,677,388	65,480,372
OKEX	-4.66%	124,410,363	352,979,304	29,141,387
BULLISH	-5.45%	142,920,757	316,242,235	30,112,003
GATE.IO	+12.03%	87,880,921	196,671,663	20,791,666
MEXC	-25.35%	103,724,587	179,266,870	38,511,340
KUCOIN	+10.15%	31,849,011	73,226,180	11,554,639
HITBTC	+3.82%	124,386,644	734,679,955	8,329,081
KRAKEN	+52.62%	27,523,626	57,436,605	8,113,768

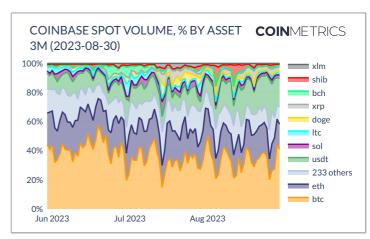


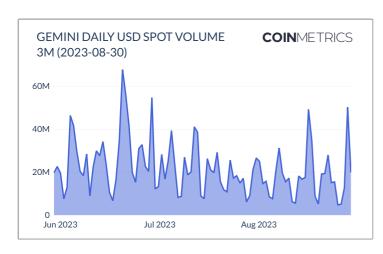
EXCHANGE SPOT VOLUME

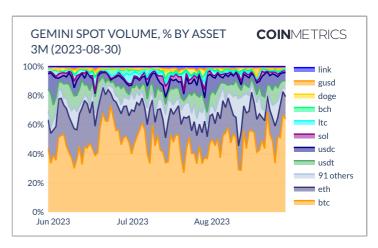


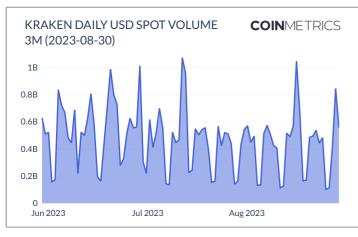


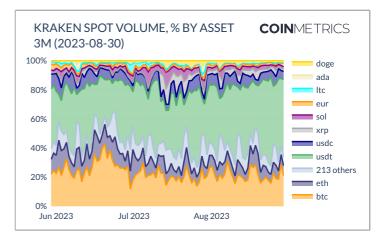




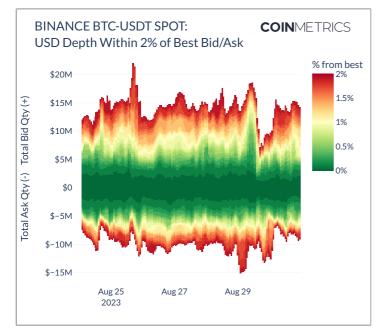


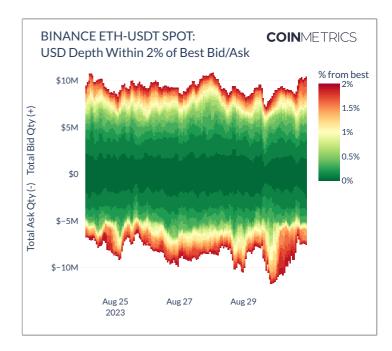


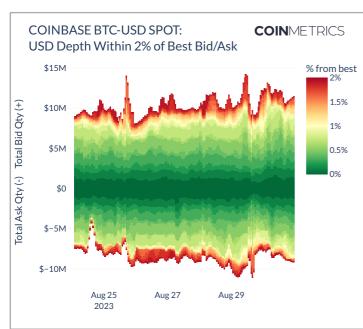


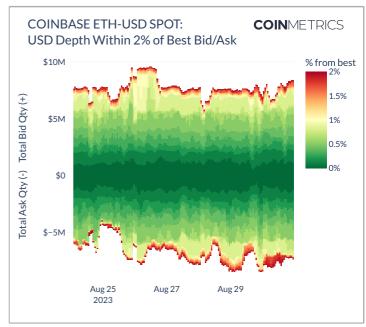


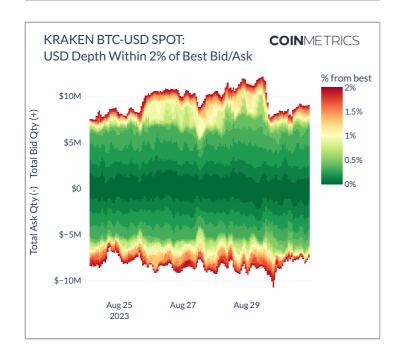
ORDER BOOK DEPTH

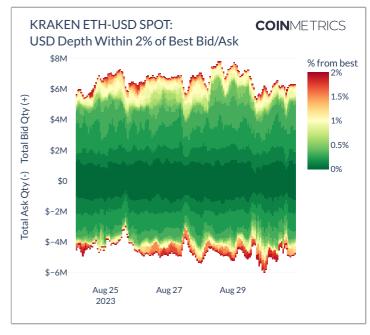




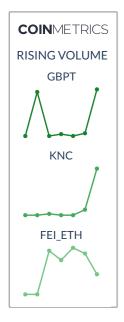


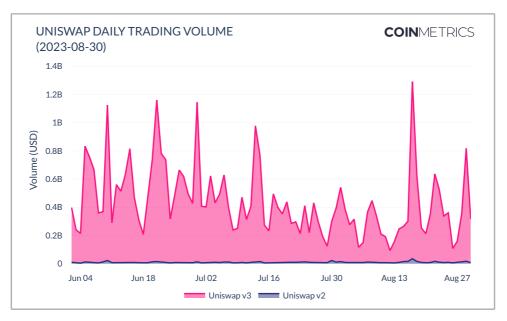


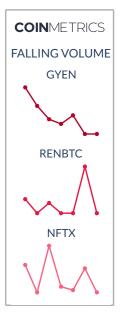


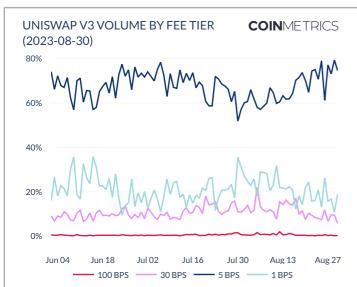


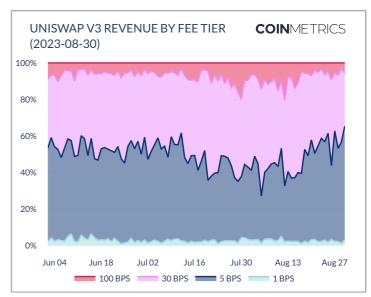
DEX DIGEST

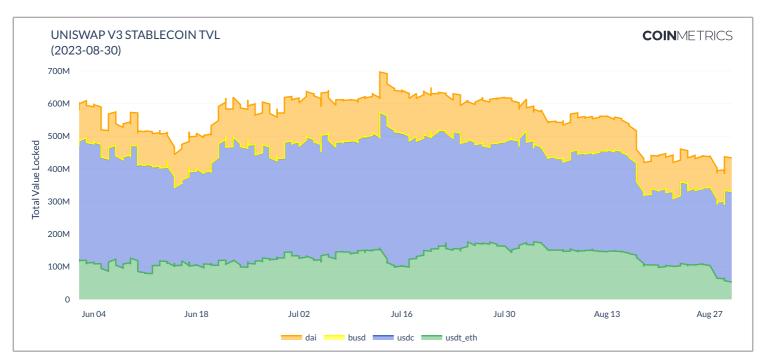












Note: DEX metrics currently capture a subset of the top liquidity pools on the Ethereum-based instantiation of each protocol.

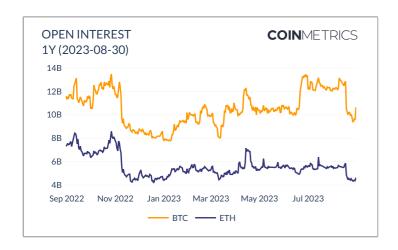
DEFI BALANCE SHEETS

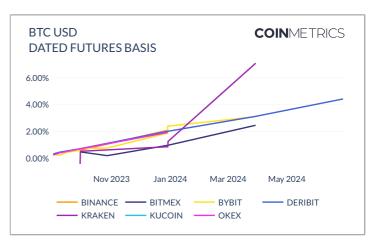


COMPOUND V2 BALANCE SHEET PROTOCOL HEALTH RATIOS 7D CHANGE VALUE **CURRENT RATIO** 0.702089 1.58% DEBT TO ASSETS RATIO 0.974077 -0.03% PROTOCOL UTILIZATION RATIO 0.324526 -3.16% LIQUID SUPPLY RATIO 0.702089 1 58% ASSETS AND LIABILITIES VALUE 7D CHANGE ASSETS TOTAL USD \$1,788M -0.87% 0.0% ASSETS TOTAL COUNT 19 LIABILITIES TOTAL USD \$1,742M -0.9% LIABILITIES TOTAL COUNT 19 0.0% LOANS LENT TOTAL USD \$565M TVL TOTAL USD \$1,223M 0.67% NET WORKING CAPITAL USD -\$519M -4.41% **TOP 10 ASSETS** BY TOTAL VALUE LOCKED (USD) \$470.97N eth \$81.98M usdc dai \$78.02M usdt_eth \$65.41M \$26.41M \$18.43M uni sushi \$3.20M comp \$2.66M link \$2.54M 0 100M 200M 300M 400M

PROTOCOL HEALTH RATIOS	VALUE	7D CHANGE	
CURRENT RATIO	0.669637	0.16%	
DEBT TO ASSETS RATIO	1.000127	0.0%	
PROTOCOL UTILIZATION RATIO	0.330237	-0.33%	
LIQUID SUPPLY RATIO	0.669637	0.16%	
ASSETS AND LIABILITIES	VALUE	7D CHANGE	
ASSETS TOTAL USD	\$3,446M	-1.72%	
ASSETS TOTAL COUNT	52	0.0%	
LIABILITIES TOTAL USD	\$3,446M	-1.72%	
LIABILITIES TOTAL COUNT	52	0.0%	
LOANS LENT TOTAL USD	\$1,138M	-2.04%	
TVL TOTAL USD	\$2,308M	-1.56%	
NET WORKING CAPITAL USD	-\$1,138M	-2.04%	
TOP 10 ASSETS BY TOTAL VALUE LOCKEI steth_lido	O (USD)	\$1189.65M	
BY TOTAL VALUE LOCKE		\$1189.65M	
BY TOTAL VALUE LOCKED steth_lido		\$1189.65M	
BY TOTAL VALUE LOCKED steth_lido wbtc \$475.75		\$1189.65M	
steth_lido wbtc \$475.75 weth \$374.06M		\$1189.65M	
steth_lido wbtc \$475.75 weth \$374.06M usdt_eth \$65.02M		\$1189.65M	
steth_lido wbtc \$475.75 weth \$374.06M usdt_eth \$65.02M link \$49.32M		\$1189.65M	
steth_lido wbtc \$475.75 weth \$374.06M usdt_eth \$65.02M link \$49.32M crv \$43.98M		\$1189.65M	
steth_lido wbtc \$475.75 weth \$374.06M usdt_eth \$65.02M link \$49.32M crv \$43.98M usdc \$38.35M		\$1189.65M	

FUTURES FEED





OPEN INTEREST

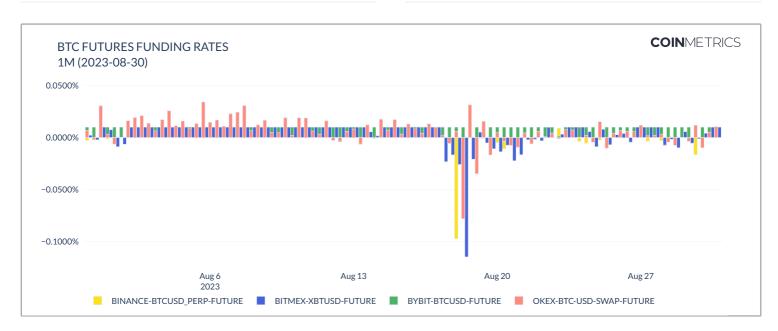
Sum of all reported open interest from futures markets in USD

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+6.40%	9,791,965,316	10,642,329,646	9,415,600,604
ETH	+1.90%	4,444,598,078	4,634,620,756	4,339,159,519
XRP	+6.33%	356,822,913	368,102,102	342,094,012
ADA	+0.85%	89,393,005	91,895,098	86,509,517
LINK	-16.55%	109,186,447	118,599,294	98,965,488
CRO	-0.08%	3,524,240	3,558,209	3,509,959
LTC	+6.87%	221,345,815	235,705,354	215,454,292
UNI	-4.54%	44,696,911	45,417,271	43,356,872
всн	+33.67%	183,116,776	235,412,178	166,160,141

FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+14.01%	21,945,384,161	55,144,194,437	4,686,148,721
ETH	-9.53%	8,429,902,312	18,396,277,560	2,282,347,431
XRP	-3.66%	1,116,511,843	2,002,064,867	605,725,837
ADA	+36.28%	243,169,895	452,920,088	132,767,477
LINK	-8.29%	246,493,392	437,131,724	112,848,410
CRO	+365.10%	5,172,903	13,755,981	765,314
LTC	-5.03%	460,112,144	1,116,442,141	177,156,045
UNI	-12.57%	83,943,401	136,659,769	50,631,229
ВСН	+193.21%	709,101,165	2,067,475,097	175,073,605





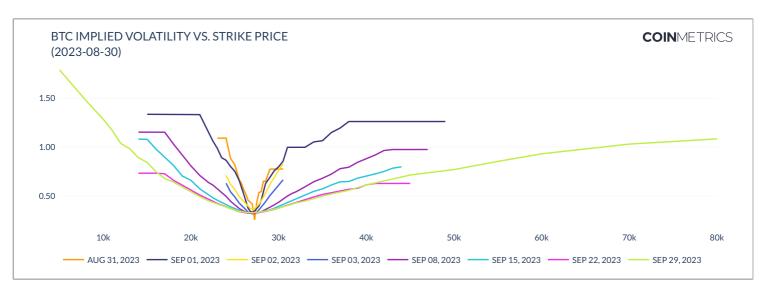


OPTIONS SNAPSHOT

BTC OPEN INTEREST

ETH OPEN INTEREST

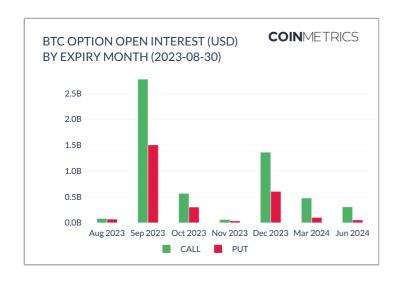
TOTAL	\$8,227,116,096	TOTAL	\$5,123,622,883
CALLS	\$5,585,222,919	CALLS	\$3,860,839,927
PUTS	\$2,641,893,178	PUTS	\$1,262,782,956

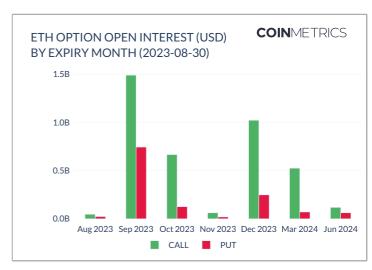


AT THE MONEY OPTIONS

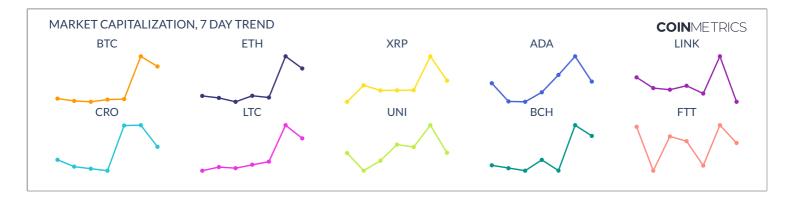
 $Market\ greeks, implied\ volatility, and\ mark\ contract\ prices\ for\ BTC\ options\ at\ or\ near\ strike\ price.$

			CALLS								PUTS			
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
7.78173	-71.34907	0.55987	0.27096	0.00026	0.4129	0.0203	BTC-31AUG23-26750	0.0003	0.4129	0.00026	-0.72904	-1.63825	-71.34907	7.78173
6.82489	-62.57595	0.44081	0.21287	0.00022	0.3478	0.0117	BTC-31AUG23-27000	0.0008	0.3479	0.00022	-0.7871	-1.7778	-62.58097	6.82543
5.1126	-74.17453	0.92765	0.80084	0.00034	0.3387	0.005	BTC-31AUG23-27250	0.0033	0.3387	0.00034	-0.19916	-0.24302	-74.17453	5.1126
4.75747	-43.62023	0.25377	0.12211	0.00016	0.361	0.0016	BTC-31AUG23-27500	0.0091	0.3609	0.00016	-0.87789	-2.00598	-43.62023	4.75747
5.62138	-58.88184	1.04679	0.78737	0.00039	0.3812	0.0224	BTC-1SEP23-26750	0.0024	0.3812	0.00039	-0.21257	-0.29623	-58.87208	5.62045
21.78119	-27.22734	11.93366	0.77575	0.00007	0.371	0.0152	BTC-1SEP23-27000	0.0045	0.371	0.00007	-0.22425	-4.3398	-27.22734	21.78119
7.6709	-78.97465	0.73404	0.54711	0.00054	0.3717	0.0098	BTC-1SEP23-27250	0.0082	0.3717	0.00054	-0.45298	-0.63429	-78.97624	7.67105
23.92222	-29.90372	11.38472	0.73304	0.00008	0.3812	0.006	BTC-1SEP23-27500	0.0135	0.3812	0.00008	-0.26696	-5.18993	-29.90332	23.9219
8.60196	-78.86954	1.50798	0.7035	0.00025	0.401	0.0252	BTC-2SEP23-26750	0.0051	0.4009	0.00025	-0.2965	-0.69014	-78.86954	8.60196
9.34002	-85.63671	1.36929	0.63604	0.00027	0.3916	0.0186	BTC-2SEP23-27000	0.0077	0.3916	0.00027	-0.36396	-0.84938	-85.63671	9.34002





MARKET CAPITALIZATION



MARKET CAP

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+4.51%	515,476,454,018	538,804,434,658	506,301,182,376
ETH	+2.99%	205,522,957,709	212,474,194,898	202,389,419,570
XRP	+1.98%	52,585,088,182	53,973,560,964	51,771,261,430
ADA	+0.15%	9,110,441,719	9,348,586,187	8,964,314,030
LINK	-2.21%	6,027,860,004	6,183,371,219	5,933,668,577
CRO	+1.03%	5,176,711,578	5,285,169,896	5,100,326,367
LTC	+4.46%	4,858,210,719	5,063,993,904	4,765,186,042
UNI	+0.03%	4,654,154,256	4,792,220,121	4,544,601,421
ВСН	+11.22%	3,909,260,392	4,361,477,914	3,704,740,121
FTT	-1.10%	339,039,800	343,462,242	332,822,465

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+4.14%	363,029,314,281	378,890,294,296	356,837,300,761
ETH	+2.92%	183,260,089,298	189,353,707,088	180,545,690,725
XRP	+2.04%	24,572,734,951	25,218,604,038	24,190,752,910
ADA	+0.15%	8,101,175,629	8,314,719,519	7,970,028,752
LINK	-2.22%	3,175,571,524	3,257,434,083	3,125,889,330
CRO	+1.01%	569,298,019	581,156,005	560,923,738
LTC	+4.45%	4,174,933,127	4,351,526,965	4,095,141,882
UNI	+0.03%	1,150,171,265	1,184,292,831	1,123,093,809
всн	+11.21%	2,638,121,157	2,943,277,315	2,500,006,953
FTT	-1.10%	339,039,800	343,462,242	332,822,465

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
втс	-0.04%	395,292,903,558	395,412,500,736	395,250,368,758
ETH	-0.06%	156,624,263,535	156,979,024,393	156,397,523,228
XRP	-0.76%	52,568,368,559	52,669,175,060	52,267,108,299
ADA	-0.38%	16,009,228,045	16,044,494,963	15,983,256,308
LINK	-0.11%	8,198,574,411	8,203,652,763	8,194,695,989
CRO	+0.01%	22,439,974,640	22,442,035,120	22,438,889,318
LTC	-0.06%	6,848,488,190	6,850,512,957	6,846,497,840
UNI	-0.08%	8,401,459,518	8,405,543,022	8,398,201,519
ВСН	+0.14%	4,688,087,233	4,693,560,875	4,685,135,778
FTT	-0.09%	842,124,556	842,708,110	841,913,931

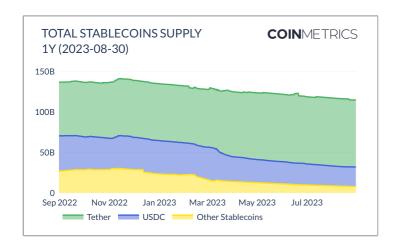
MARKET VALUE TO REALIZED VALUE

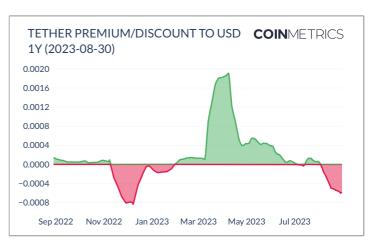
The ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+4.56%	1.30	1.36	1.28
ETH	+3.05%	1.31	1.35	1.29
XRP	+2.77%	1.00	1.03	0.98
ADA	+0.54%	0.57	0.58	0.56
LINK	-2.10%	0.74	0.75	0.72
CRO	+1.01%	0.23	0.24	0.23
LTC	+4.52%	0.71	0.74	0.70
UNI	+0.11%	0.55	0.57	0.54
всн	+11.06%	0.83	0.93	0.79
FTT	-1.01%	0.40	0.41	0.40



STABLECOINS REPORT





MARKET CAPITALIZATION

USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.03%	39,016,318,384	39,031,826,057	39,001,854,789
USDT	+0.03%	887,758,108	888,110,962	887,429,011
USDT_TRX	+0.03%	42,818,841,072	42,835,860,119	42,802,967,858
PAX	-0.03%	505,260,625	507,725,136	504,365,315
DAI	-0.56%	3,903,968,351	3,934,300,182	3,881,418,525
USDC	+0.98%	24,216,773,148	24,347,877,518	24,080,624,974
BUSD	-3.21%	3,128,179,398	3,173,799,816	3,071,998,406
GUSD	-0.12%	311,021,013	311,423,005	310,360,621

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+16.71%	2,312,373,358	3,505,280,623	995,791,674
USDT	+116.55%	881,634	2,770,282	240,449
USDT_TRX	+9.41%	8,687,688,066	11,257,181,380	4,762,198,370
PAX	-90.29%	31,124,323	71,849,806	6,973,681
DAI	-20.56%	321,690,806	435,094,340	112,150,055
USDC	-12.09%	3,250,085,805	5,107,632,879	1,637,443,923
BUSD	-13.35%	81,672,724	346,923,465	1,309,486
GUSD	-6.21%	1,329,458	4,073,387	151,331





TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+4.23%	91,361	102,577	70,137
USDT	+458.93%	80	313	21
USDT_TRX	+11.34%	1,817,492	2,078,391	1,516,224
PAX	+6.45%	107	147	56
DAI	-13.27%	3,565	4,440	2,667
USDC	-2.82%	32,112	37,455	24,729
BUSD	+9.31%	750	2,610	349
GUSD	-46.02%	69	113	35

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

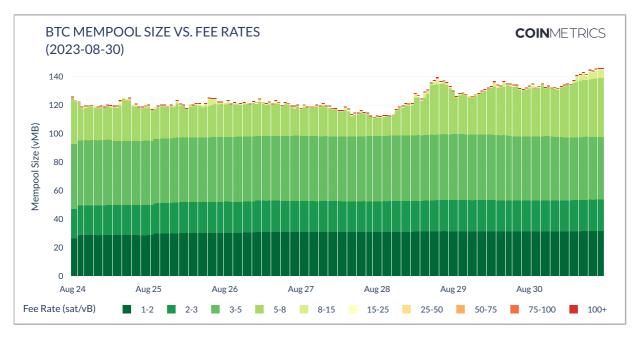
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+12.87%	617	851	400
USDT	-71.46%	1,197	2,210	66
USDT_TRX	+12.67%	125	137	112
PAX	-75.14%	6,271	19,783	489
DAI	-16.40%	1,366	2,000	933
USDC	+5.59%	954	1,500	520
BUSD	+43.58%	437	791	46
GUSD	+50.21%	3,721	15,492	701

VELOCITY

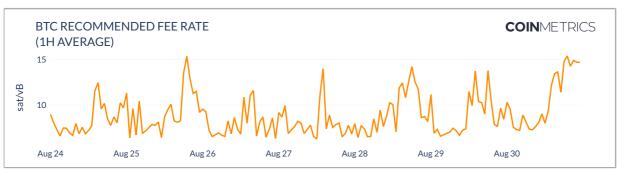
Number of times that an average native unit among the active supply has been transferred in the past 1 year

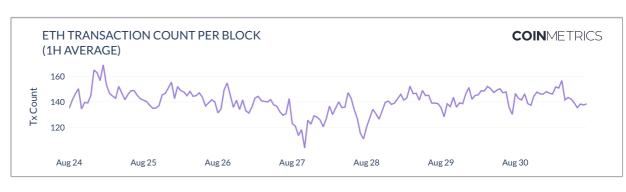
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.03%	36.60	36.64	36.55
USDT	-4.29%	42.03	42.86	41.02
USDT_TRX	+0.69%	71.78	72.06	71.57
PAX	+0.88%	35.12	35.40	35.00
DAI	-8.39%	211.46	217.23	198.99
USDC	-3.67%	121.88	123.88	119.33
BUSD	+1.68%	82.94	83.78	82.38
GUSD	-0.02%	17.69	17.72	17.68

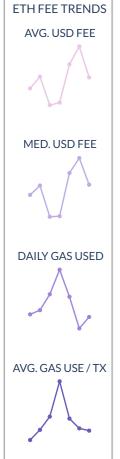
FEE MARKET



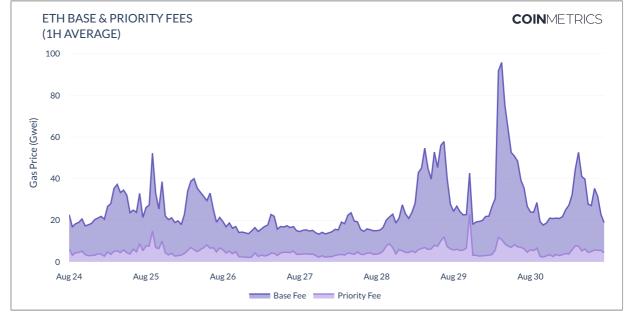








COINMETRICS



NETWORK DATA FUNDAMENTALS



ACTIVE ADDRESSES

Count of unique addresses that were active in the network

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-7.27%	915,232	1,060,996	808,508
ETH	+7.92%	445,687	500,557	392,700
XRP	-5.82%	29,716	36,766	24,320
ADA	+0.48%	33,468	42,956	25,589
LINK	-8.81%	2,009	2,241	1,750
CRO	-3.49%	225	260	185
LTC	+7.20%	223,497	240,662	207,445
UNI	+6.53%	626	709	551
всн	+83.91%	35,790	59,295	24,904
FTT	-1.37%	74	92	58

FREE FLOAT SUPPLY

Sum of native units readily available to trade in open markets

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-0.34%	13,711,758	13,735,026	13,688,881
ETH	+0.00%	109,670,103	109,695,089	109,646,020
XRP	+0.06%	46,724,039,593	46,749,138,670	46,718,570,138
ADA	+0.02%	30,556,991,402	30,569,878,715	30,546,267,953
LINK	-0.01%	526,815,714	526,845,829	526,805,515
CRO	-0.02%	10,997,297,442	10,997,904,155	10,995,964,695
LTC	+0.02%	63,239,105	63,243,668	63,231,809
UNI	+0.00%	247,127,873	247,131,454	247,125,357
ВСН	+0.02%	13,151,227	13,153,252	13,149,323
FTT	+0.00%	328,895,104	328,895,104	328,895,104

COINMETRICS ACTIVE ADDRESSES, 7 DAY TREND BTC ETH XRP ADA LINK CRO LTC UNI BCH FTT

TRANSACTION COUNT

Count of transactions

BTC +1.19% 425,795 509,039 326,48! ETH -2.65% 1,003,105 1,055,235 907,11! XRP +20.31% 983,693 1,175,296 847,55* ADA +50.16% 52,829 73,797 39,730 LINK -6.15% 2,298 2,454 2,031 CRO +5.49% 259 306 192 LTC +0.72% 112,267 118,487 107,764	
XRP +20.31% 983,693 1,175,296 847,55 ADA +50.16% 52,829 73,797 39,730 LINK -6.15% 2,298 2,454 2,031 CRO +5.49% 259 306 192	5
ADA +50.16% 52,829 73,797 39,730 LINK -6.15% 2,298 2,454 2,031 CRO +5.49% 259 306 192)
LINK -6.15% 2,298 2,454 2,031 CRO +5.49% 259 306 192	,
CRO +5.49% 259 306 192	
LTC +0.72% 112.267 118.487 107.76	
)
UNI -13.16% 757 973 586	
BCH +105.46% 21,249 35,843 15,170	
FTT -20.56% 96 134 61	

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+13.16%	3,317,363,016	4,792,834,532	1,702,760,900
ETH	+1.56%	1,997,312,607	2,985,173,830	1,104,181,154
XRP	+95.10%	485,162,631	747,517,505	179,478,518
ADA	+12.46%	4,354,721,488	5,029,865,189	3,291,166,619
LINK	-15.99%	34,050,912	51,104,521	9,959,236
CRO	+424.46%	754,019	2,405,099	109,691
LTC	+2.71%	56,512,426	80,525,097	43,338,716
UNI	-70.38%	25,683,585	53,123,330	13,144,385
ВСН	+23.67%	22,223,300	41,037,179	9,296,772
FTT	-27.58%	551,740	926,092	241,281

ADDRESSES ≥ \$1

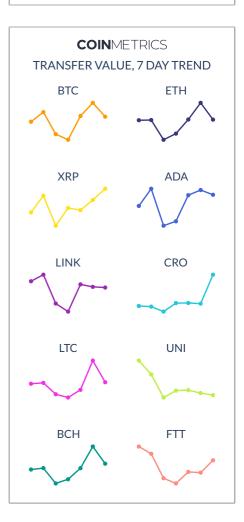
Count of addresses holding at least \$1 worth of native units

		-		
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.79%	40,433,521	40,600,565	40,282,286
ETH	+1.33%	59,405,019	60,207,946	59,063,096
XRP	+0.21%	4,763,531	4,768,839	4,758,862
ADA	+0.10%	3,540,086	3,547,262	3,534,326
LINK	+0.24%	527,695	528,551	527,014
CRO	+0.16%	149,402	149,651	149,244
LTC	-0.44%	2,312,004	2,319,540	2,301,794
UNI	+0.21%	283,324	283,904	282,710
ВСН	+3.40%	4,391,283	4,529,755	4,331,407
FTT	+0.17%	21,257	21,305	21,191

ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+1.55%	70,941	71,999	70,505
ETH	+2.93%	9,726	10,030	9,598
XRP	+1.20%	1,181	1,199	1,171
ADA	+0.38%	794	818	783
LINK	-1.69%	354	365	349
CRO	+0.00%	48	48	48
LTC	+3.54%	429	441	424
UNI	-0.33%	299	301	297
ВСН	+13.61%	305	340	288
FTT	+0.00%	14	14	14



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 $^{\text{TM}}$, 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. <u>More info</u> on datonomy.

SECTOR INDEXES

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

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

CMBI SINGLE ASSET SERIES

The CMBI Single Asset Series provide the cryptoasset community, investors and asset managers with publicly available and investable benchmarks that reliably and accurately track the price of a single cryptoasset, through sourcing market prices from numerous global liquidity venues. <u>More information</u> 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 8/27/2023 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 8/27/2023 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 liqudity 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 <u>Data Encyclopedia</u>.

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 <u>futures basis metrics</u> 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 <u>Data Encyclopedia</u>.

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 a 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 FFF 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 ≥ \$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 ≥ \$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.

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