STATE OF THE MARKET

APR. 27 - MAY 3, 2023

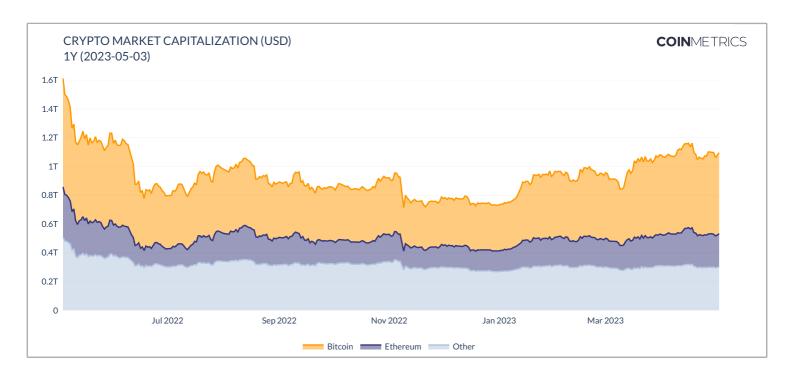
Coin Metrics' State of the Market provides an overview of cryptoasset market activity



COINMETRICS

MARKET SUMMARY

First Republic has joined the ranks of failed regional banks, beating SVB's breakdown to become the 2nd-largest banking collapse in U.S. history. The FDIC seized control of First Republic over the weekend after the bank failed to rally enthusiasm for an above-market-price sale of their bond portfolio. The bank's April earnings report also revealed customers withdrew more than \$100B in deposits—a decline of around 40%—during Q1. After the FDIC took receivership of FRB's assets, a "competitive bidding process" ensued, and the majority of First Republic's assets were sold to JPMorgan by Monday. The FDIC is reportedly also scrutinizing crypto-friendly Cross River Bank, outlining a litany of "unsafe or unsound banking practices" in a 34-page consent order (though the bank doesn't expect it will have "any meaningful impact" on their growth trajectory). Between banking chaos & cooling core inflation, the Federal Reserve is taking a hard look at monetary policy. On Wednesday, Fed board members unanimously moved to raise rates +25 bps, bringing the benchmark rate to the highest level in 16 years. Though Chairman Powell dismissed the notion of cutting rates in 2023, a potential pause in the hike cycle was foreshadowed, with future policy decisions driven by "incoming data meeting by meeting." Bitcoin's on-chain ecosystem continues to pick up steam. Enthusiasm for Ordinals/Inscriptions remains high, with a 3rd wave of speculative interest unfolding thanks to an experimental 'BRC-20' token standard. Within a few days, the most popular token ORDI amassed a \$89M market cap, with memecoin copycats like MEME, SHIB, & PEPE soon to follow. Though the majority of BRC-20 trading remains relegated to the OTC realm, top Asian exchanges Huobi and OKX both shared plans to expand support for Ordinals marketplaces. Thanks to the uptick in on-chain activity, Bitcoin's daily transaction count has clipped an all-time high of 685K, easily surpassing the previous record of 498K in December 2017. The BRC-20 frenzy also boosts bottom lines for miners, with average transaction fees soaring to nearly 1 BTC per block by mid-Wednesday. As BTC births a nascent memecoin scene, the ETH ecosystem continues to crank out multi-million dollar altcoins. ERC-20 heavyweight PEPE ("the most memeable memecoin in existence") soared +300% over the weekend, snagging a near-\$600M fully-diluted valuation. The frog fervor helped jumpstart the ETH fee market, with gas prices reaching as high as 150 Gwei on Monday. As memecoin spot swaps congest on-chain trading venues, centralized exchanges are breaking ground on new product offerings. On Tuesday, Coinbase officially launched Coinbase International Exchange (CIE), a Bermuda-based derivatives exchange offering up to 5x leverage on BTC & ETH perpetual futures. With decentralized marketplaces and offshore exchanges taking an increasingly larger piece of the crypto-trading pie, U.S. regulators find themselves pushing the digital assets industry beyond their borders.

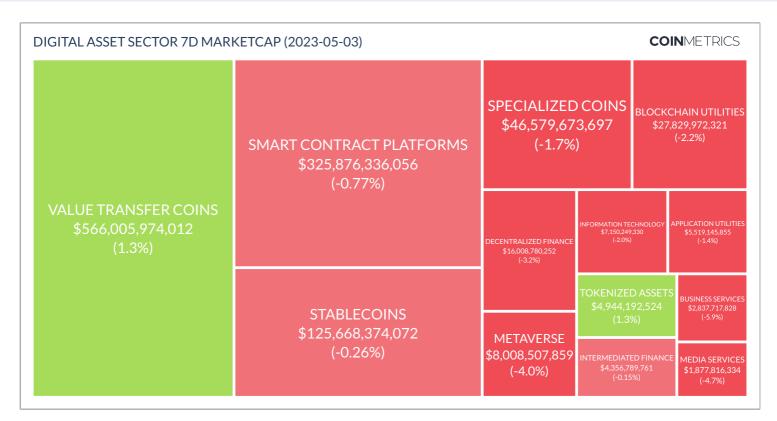


PRICE (CMBI CONSTITUENTS)

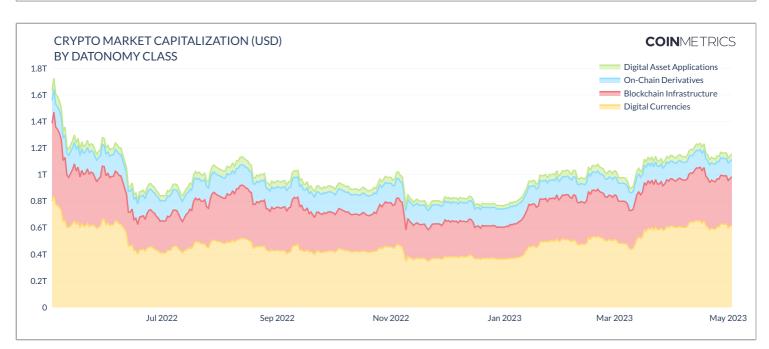
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
втс	\$28,359.25	-4.54%	\$29,707.70	\$27,927.76	-21.42%	\$36,088.04	\$15,799.60
ETH	\$1,875.11	-2.47%	\$1,922.69	\$1,816.42	-30.95%	\$2,715.52	\$923.00
SOL	\$21.47	-3.89%	\$23.35	\$21.47	-74.13%	\$83.00	\$8.35
DOT	\$5.67	-5.86%	\$6.03	\$5.63	-60.45%	\$14.33	\$4.27
ADA	\$0.38	-7.34%	\$0.41	\$0.38	-51.69%	\$0.79	\$0.24
DOGE	\$0.08	-3.14%	\$0.08	\$0.08	-39.00%	\$0.14	\$0.05
MATIC	\$0.99	-2.50%	\$1.02	\$0.95	-4.89%	\$1.52	\$0.34
BNB	\$323.76	-3.41%	\$335.26	\$322.94	-13.59%	\$381.21	\$189.63
AVAX	\$17.03	-4.55%	\$17.84	\$16.68	-70.62%	\$57.94	\$10.78
АТОМ	\$10.90	-6.24%	\$11.74	\$10.88	-38.09%	\$17.74	\$5.73
CMBI10	\$3,089.00	-3.89%	\$3,214.04	\$3,032.71	-30.87%	\$4,468.25	\$1,838.40

ASSET CLASSES





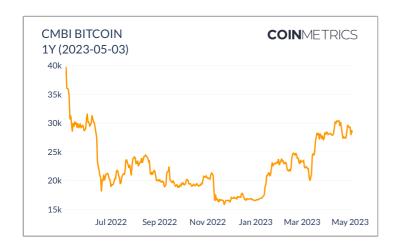


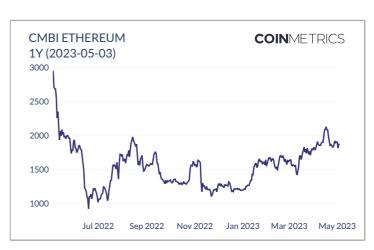
INDEX ROUNDUP

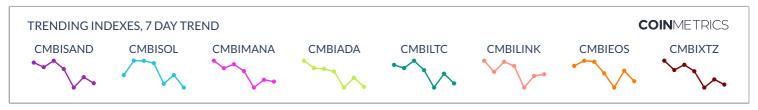
SINGLE ASSET INDEXES

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	\$28,359.25	-4.54%	\$29,707.70	\$27,927.76	-21.42%	\$36,088.04	\$15,799.60
СМВІВТСТ	\$30,468.85	-4.54%	\$31,917.61	\$30,005.26	-21.42%	\$38,772.56	\$16,974.91
СМВІЕТН	\$1,875.11	-2.47%	\$1,922.69	\$1,816.43	-30.95%	\$2,715.52	\$923.00
СМВІЕТНТ	\$2,035.60	-2.47%	\$2,087.26	\$1,971.90	-30.95%	\$2,947.94	\$1,002.00





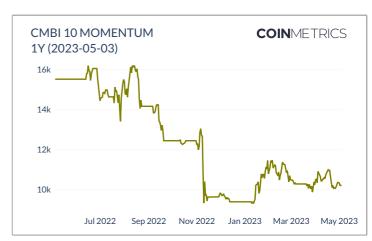


MULTI ASSET INDEXES

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	\$3,089.00	-3.89%	\$3,214.04	\$3,032.71	-30.87%	\$4,468.25	\$1,838.40
CMBI10E	\$5,133.90	-4.38%	\$5,369.33	\$5,083.12	-53.15%	\$10,958.08	\$3,409.70
CMBI10EX	\$7,038.13	-2.99%	\$7,254.90	\$6,881.03	-41.06%	\$11,940.34	\$4,169.19
CMBI10M	\$10,214.63	-0.13%	\$10,360.13	\$10,214.63	-34.15%	\$16,189.37	\$9,310.27
CMBIBE	\$14,766.75	-3.84%	\$15,355.78	\$14,460.00	-24.96%	\$19,679.04	\$8,387.96





MARKET MOVEMENT

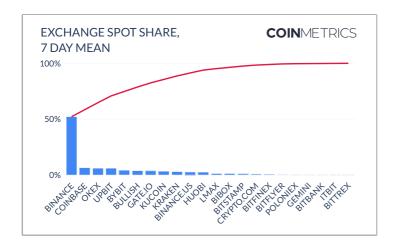
TRADING DIARY, 7 DAY

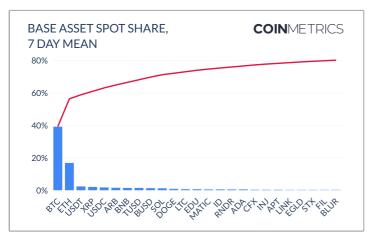
ADVANCING VOLUME \$111,557,745,396

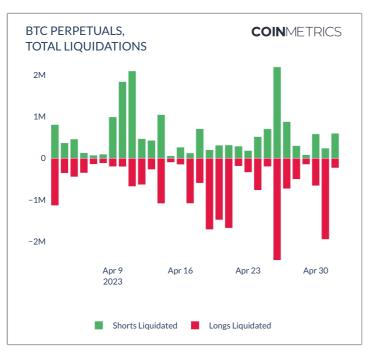
DECLINING VOLUME \$27,069,893,241

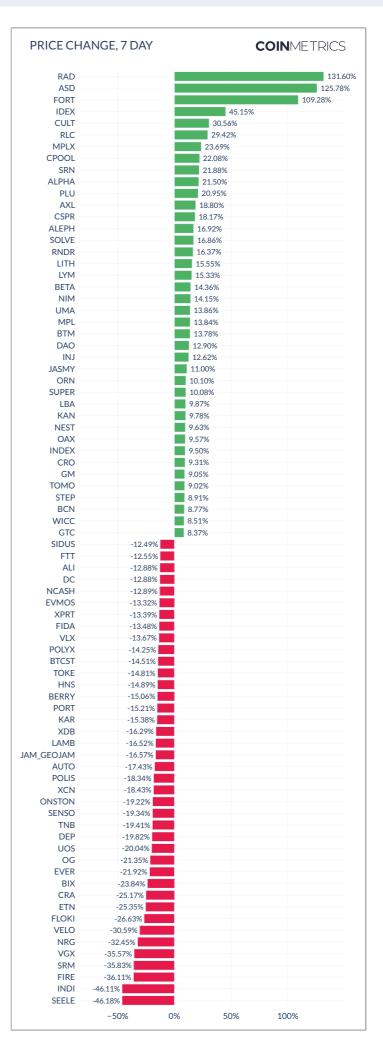
ADVANCES 206

DECLINES 442

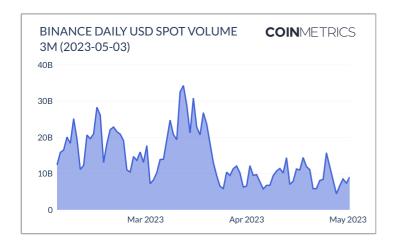


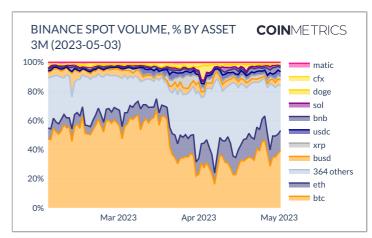


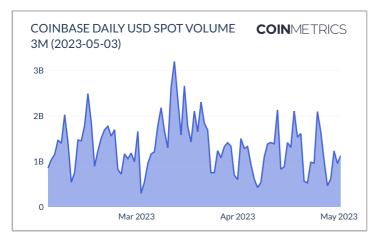


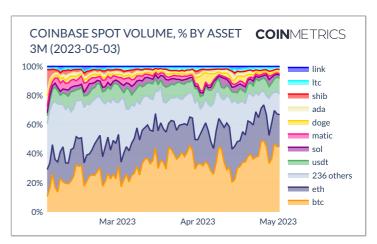


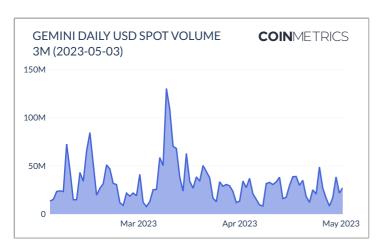
EXCHANGE SPOT VOLUME

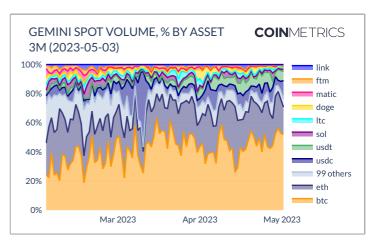


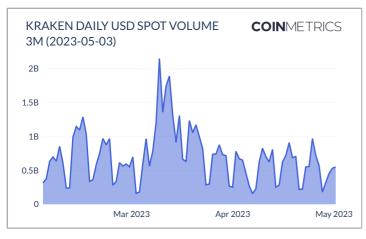


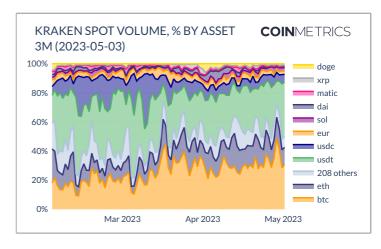




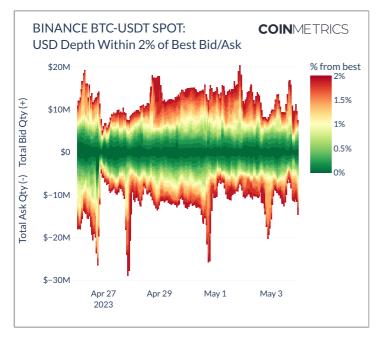


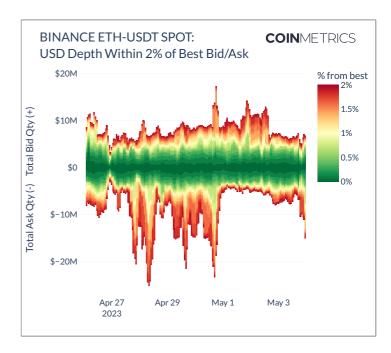


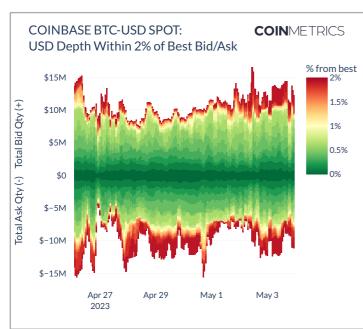


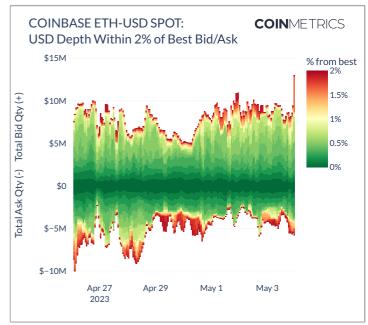


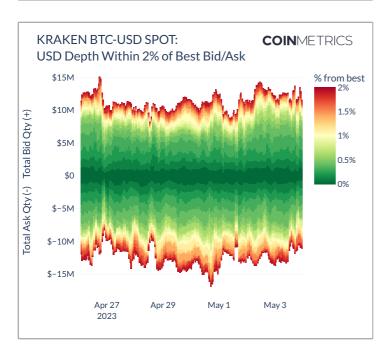
ORDER BOOK DEPTH

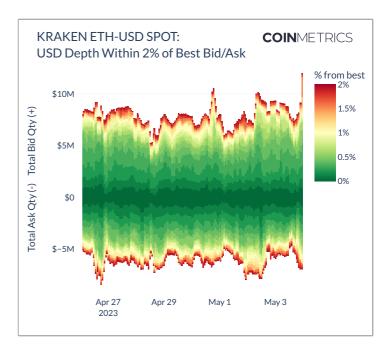






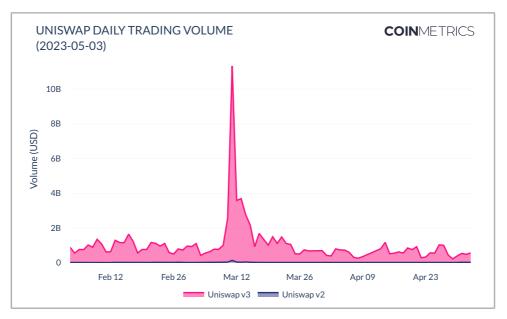




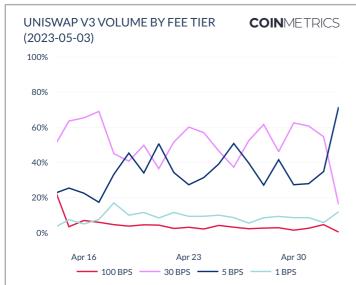


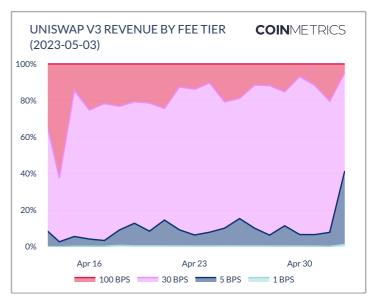
DEX DIGEST

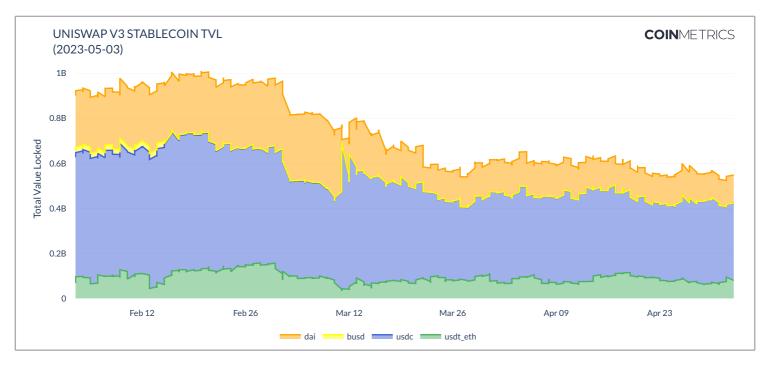








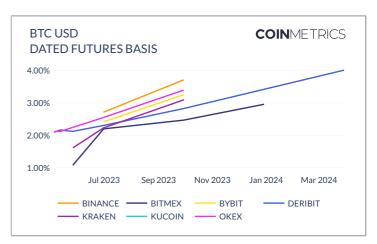




Note: DEX metrics currently capture a subset of the top liquidity pools on the Ethereum-based instantiation of each protocol.

FUTURES FEED





OPEN INTEREST

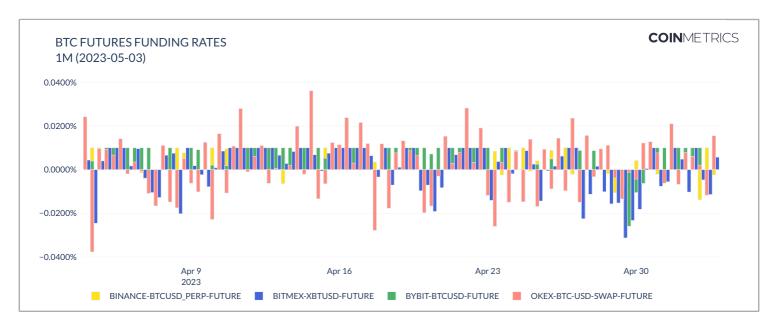
Sum of all reported open interest from futures markets in USD

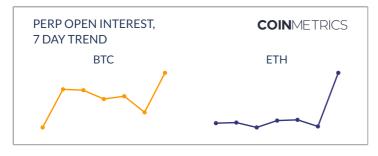
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+5.32%	11,923,886,047	12,244,214,961	11,576,072,490
ETH	+3.71%	6,123,561,308	6,392,322,340	5,991,633,910
XRP	+8.32%	467,098,022	485,024,737	447,764,270
ADA	+1.42%	223,158,318	235,447,098	216,043,104
CRO	+1.77%	23,912,935	26,053,550	22,084,552
LINK	+5.18%	122,217,120	124,495,637	117,762,951
LTC	+0.77%	474,669,025	491,734,577	452,892,460
UNI	+4.06%	46,434,490	48,119,648	44,878,042
ВСН	-0.93%	143,296,546	146,622,118	140,301,817

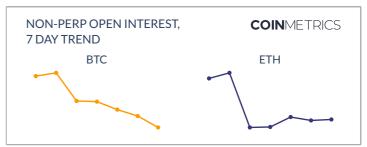
FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-30.56%	36,243,969,111	62,017,537,860	13,381,866,589
ETH	-30.89%	16,301,163,185	27,678,817,657	7,508,014,042
XRP	-15.16%	935,151,741	1,283,079,928	613,346,637
ADA	-33.73%	376,550,364	653,197,967	188,014,642
CRO	-88.97%	12,207,777	29,237,328	2,823,628
LINK	-13.27%	272,754,935	383,335,641	181,981,579
LTC	-21.66%	611,575,614	912,597,913	421,232,041
UNI	-36.61%	64,343,840	111,592,680	42,031,078
всн	-26.29%	89,724,914	127,340,601	56,800,725







OPTIONS SNAPSHOT

BTC OPEN INTEREST

ETH OPEN INTEREST

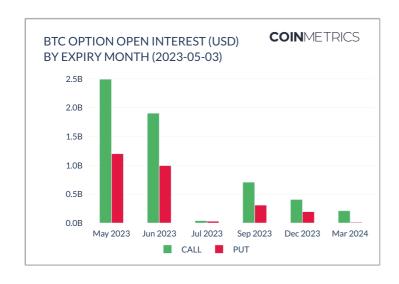
TOTAL	\$8,126,533,745	TOTAL	\$4,657,183,630
CALLS	\$5,532,312,969	CALLS	\$3,395,714,910
PUTS	\$2,594,220,776	PUTS	\$1,261,468,719

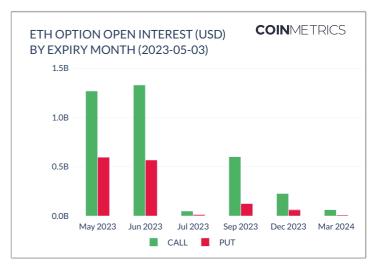


AT THE MONEY OPTIONS

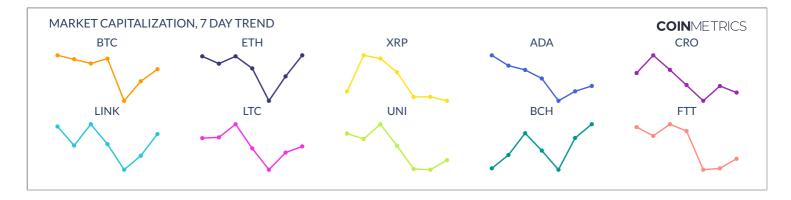
Market greeks, implied volatility, and mark contract prices for BTC options at or near strike price.

		C	CALLS								PUTS			
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
6.79592	-81.47235	1.17627	0.75302	0.00029	0.6404	0.0316	BTC-3MAY23-27750	0	0.6404	0.00029	-0.24698	-0.41133	-81.47235	6.79592
6.89757	-63.24238	1.86266	0.82281	0.00018	0.5202	0.0229	BTC-3MAY23-28000	0	0.5202	0.00018	-0.17719	-0.43818	-63.24238	6.89757
6.56953	-47.60542	1.78879	0.82728	0.00024	0.479	0.0141	BTC-3MAY23-28250	0	0.479	0.00024	-0.17272	-0.39822	-47.60542	6.56953
8.9974	-82.49523	1.63679	0.71604	0.00023	0.4656	0.0054	BTC-3MAY23-28500	0	0.4656	0.00023	-0.28396	-0.70513	-82.49523	8.9974
8.35996	-76.65073	1.65828	0.74354	0.00023	0.6604	0.0439	BTC-4MAY23-27750	0.0001	0.6604	0.00023	-0.25646	-0.62201	-76.65073	8.35996
9.25323	-84.84094	1.52871	0.68239	0.00025	0.6525	0.0355	BTC-4MAY23-28000	0.0003	0.6525	0.00025	-0.31761	-0.77212	-84.84094	9.25323
9.91115	-90.87324	1.38646	0.61643	0.00027	0.6024	0.0271	BTC-4MAY23-28250	0.0005	0.6024	0.00027	-0.38357	-0.93492	-90.87324	9.91115
10.28179	-94.27157	1.23588	0.54752	0.00028	0.5627	0.0192	BTC-4MAY23-28500	0.0012	0.5627	0.00028	-0.45248	-1.10604	-94.27157	10.28179
6.31125	-103.58913	1.03779	0.75861	0.00026	0.5441	0.0454	BTC-5MAY23-27750	0.0012	0.5441	0.00026	-0.2414	-0.35499	-103.58969	6.31128
24.27664	-30.3458	11.63259	0.73526	0.00008	0.5294	0.0374	BTC-5MAY23-28000	0.002	0.5294	0.00008	-0.26474	-5.24412	-30.3458	24.27664





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	-1.40%	562,148,082,930	570,387,314,623	544,350,638,079
ETH	+0.09%	228,546,700,327	231,127,622,825	221,990,385,229
XRP	-0.67%	46,990,328,200	47,874,538,381	46,350,885,338
ADA	-3.76%	13,568,580,788	13,960,551,789	13,181,537,516
CRO	-4.27%	7,388,612,716	7,800,304,117	7,052,739,797
LINK	-0.65%	7,067,408,147	7,182,801,521	6,900,856,729
LTC	-0.87%	6,480,654,978	6,624,860,280	6,312,970,587
UNI	-3.12%	5,462,541,594	5,622,857,006	5,325,641,755
ВСН	+2.69%	2,296,055,825	2,329,530,046	2,266,628,261
FTT	-5.35%	488,862,120	506,565,901	467,847,306

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-1.44%	400,767,628,850	406,741,446,840	388,027,751,505
ETH	+0.18%	209,220,075,772	211,698,532,075	203,280,760,696
XRP	-0.68%	21,348,664,596	21,750,968,617	21,057,372,219
ADA	-3.58%	11,999,706,659	12,340,887,671	11,647,431,654
CRO	-4.28%	936,643,718	988,838,940	894,051,995
LINK	-1.18%	3,582,548,268	3,649,628,638	3,494,943,154
LTC	-1.38%	5,608,712,855	5,729,903,500	5,459,902,940
UNI	-3.09%	1,271,520,605	1,308,673,921	1,239,865,428
всн	+2.81%	1,555,878,830	1,579,329,422	1,536,131,445
FTT	-5.35%	471,579,191	488,657,084	451,307,322

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	+0.31%	386,628,571,419	387,382,112,618	386,173,177,733
ETH	+0.23%	167,004,957,453	167,465,108,815	166,749,882,997
XRP	+0.06%	49,219,753,657	49,244,697,452	49,190,587,547
ADA	-0.25%	17,779,531,895	17,801,056,994	17,753,958,003
CRO	+0.03%	22,303,703,847	22,308,371,276	22,300,060,655
LINK	-0.37%	8,323,305,035	8,336,331,918	8,305,638,404
LTC	+0.10%	6,889,609,941	6,894,765,313	6,884,929,008
UNI	-0.15%	8,875,000,900	8,884,615,950	8,865,621,059
ВСН	-0.66%	4,322,636,509	4,338,755,483	4,309,922,196
FTT	-0.08%	913,897,238	914,305,372	913,333,437

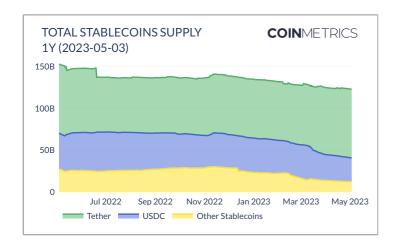
MARKET VALUE TO REALIZED VALUE

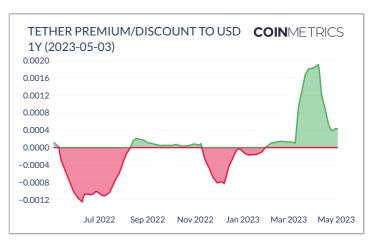
 $The\ ratio\ of\ a\ cryptoasset's\ market\ cap\ (aka\ market\ value)\ to\ realized\ cap\ (aka\ realized\ value).$

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-1.71%	1.45	1.48	1.41
ETH	-0.14%	1.37	1.38	1.33
XRP	-0.73%	0.95	0.97	0.94
ADA	-3.52%	0.76	0.78	0.74
CRO	-4.30%	0.33	0.35	0.32
LINK	-0.29%	0.85	0.86	0.83
LTC	-0.97%	0.94	0.96	0.92
UNI	-2.98%	0.62	0.63	0.60
ВСН	+3.38%	0.53	0.54	0.52
FTT	-5.27%	0.53	0.55	0.51



STABLECOINS REPORT





MARKET CAPITALIZATION

USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-0.01%	36,298,497,208	36,308,073,276	36,290,820,455
USDT	-0.01%	888,374,663	888,609,029	888,186,781
USDT_TRX	-0.01%	45,151,683,133	45,163,594,799	45,142,134,023
PAX	+0.35%	1,038,892,133	1,040,683,960	1,036,372,040
DAI	-1.96%	4,727,844,205	4,781,724,490	4,688,005,082
USDC	-1.39%	28,805,227,552	28,967,617,835	28,563,801,690
BUSD	-4.65%	6,159,660,852	6,281,115,340	5,989,279,111
GUSD	+5.83%	494,657,199	514,896,076	485,422,880

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-3.63%	2,544,693,850	3,398,522,957	1,250,394,107
USDT	-74.69%	1,695,883	6,225,324	37,854
USDT_TRX	+3.72%	8,539,216,599	10,516,131,282	5,265,512,991
PAX	-50.80%	58,148,249	104,495,483	9,978,555
DAI	-80.25%	280,907,981	868,808,690	100,137,395
USDC	-32.39%	2,854,964,579	4,402,260,967	1,128,908,910
BUSD	+452.93%	108,505,498	303,140,654	3,715,757
GUSD	-30.23%	17,767,877	38,942,774	22,729





TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+4.45%	96,660	107,924	76,537
USDT	-5.26%	22	47	6
USDT_TRX	+4.59%	2,196,181	2,393,774	1,824,052
PAX	-21.12%	115	161	45
DAI	-16.10%	3,312	4,162	2,764
USDC	-1.06%	34,645	40,973	26,099
BUSD	+3.72%	636	751	492
GUSD	-27.59%	76	121	21

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

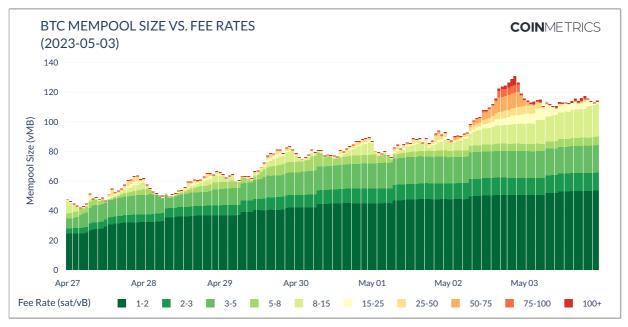
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+13.33%	766	943	507
USDT	-67.00%	1,706	5,330	165
USDT_TRX	+15.02%	105	115	100
PAX	+74.34%	35,514	99,579	990
DAI	+198.84%	802	1,700	160
USDC	+4.87%	1,209	1,502	864
BUSD	+42.21%	469	808	248
GUSD	+240.81%	1,794	4,016	460

VELOCITY

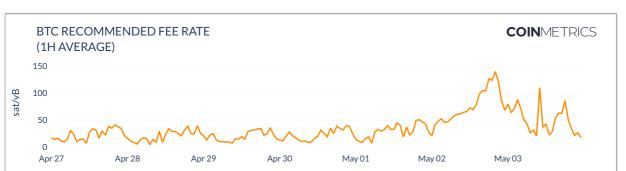
Number of times that an average native unit among the active supply has been transferred in the past 1 year $\,$

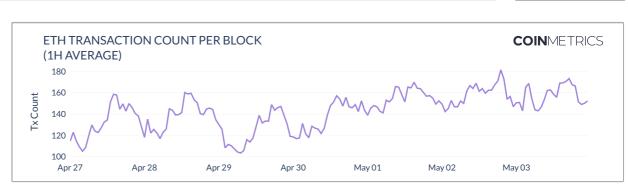
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-0.25%	41.17	41.27	41.12
USDT	+0.19%	3.08	3.09	3.07
USDT_TRX	+0.58%	61.32	61.55	61.19
PAX	+0.41%	14.77	14.83	14.73
DAI	+1.75%	274.58	276.36	271.28
USDC	+0.98%	125.13	125.98	124.59
BUSD	+4.52%	48.07	49.49	47.35
GUSD	-5.82%	14.62	14.94	14.07

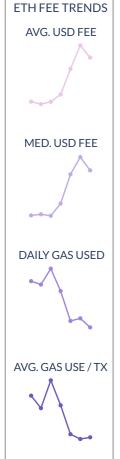
FEE MARKET



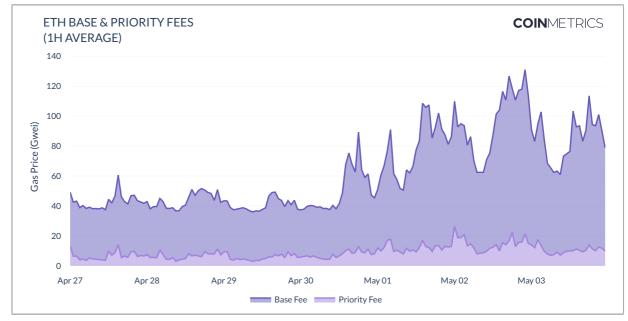








COINMETRICS



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	+6.81%	875,151	957,827	767,567
ETH	-11.42%	464,612	514,444	402,270
XRP	-8.27%	32,389	45,269	23,031
ADA	-4.26%	48,022	59,693	38,862
CRO	-17.28%	380	531	305
LINK	-18.40%	1,684	2,058	1,492
LTC	+59.42%	244,474	335,254	210,301
UNI	-18.29%	691	904	574
ВСН	+4.28%	40,222	57,329	34,986
FTT	+36.67%	96	123	77

FREE FLOAT SUPPLY

Sum of native units readily available to trade in open markets

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-0.01%	13,802,528	13,804,718	13,801,058
ETH	+0.41%	110,917,919	111,122,217	110,672,501
XRP	-0.01%	45,426,980,540	45,428,254,569	45,425,303,278
ADA	+0.20%	30,140,678,856	30,188,816,397	30,116,239,780
CRO	-0.01%	12,676,850,184	12,677,504,555	12,676,593,848
LINK	-0.53%	506,905,260	509,109,581	506,433,953
LTC	-0.45%	63,023,386	63,271,478	62,975,030
UNI	+0.03%	232,771,497	232,811,720	232,741,811
всн	+0.15%	13,131,702	13,139,899	13,120,752
FTT	+0.00%	317,267,550	317,267,550	317,267,550

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

TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+16.59%	512,425	685,711	419,005
ETH	+18.94%	1,019,427	1,127,805	887,098
XRP	+0.71%	969,584	1,001,365	936,626
ADA	+33.96%	52,406	66,464	42,576
CRO	-35.96%	495	693	365
LINK	-13.71%	1,812	2,101	1,600
LTC	+94.76%	117,294	183,927	94,439
UNI	-19.43%	702	908	538
ВСН	+4.55%	11,125	11,919	9,366
FTT	+63.33%	122	196	78

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+4.25%	3,253,338,187	3,990,490,741	1,944,089,811
ETH	-18.77%	3,078,655,239	5,233,238,104	1,545,760,507
XRP	-17.30%	515,524,172	908,262,716	172,306,405
ADA	-22.40%	9,280,436,745	13,026,789,667	7,118,555,423
CRO	-66.81%	8,368,090	47,342,223	784,435
LINK	-4.83%	21,037,300	32,750,666	12,135,231
LTC	-16.91%	83,601,102	99,960,590	62,394,792
UNI	+54.13%	6,187,644	10,668,933	2,396,021
ВСН	-80.69%	19,380,043	52,333,474	10,104,760
FTT	-39.31%	1,742,335	3,165,848	705,286

ADDRESSES ≥ \$1

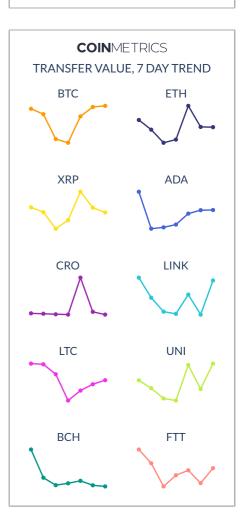
Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+1.16%	38,709,128	38,943,502	38,498,628
ETH	+0.35%	58,207,255	58,506,406	57,770,049
XRP	+0.13%	4,689,421	4,692,282	4,686,393
ADA	-0.25%	3,597,637	3,605,625	3,589,892
CRO	-0.05%	151,797	152,100	151,500
LINK	+0.11%	508,263	508,646	507,999
LTC	+0.30%	2,223,077	2,236,215	2,216,329
UNI	+0.31%	294,093	294,606	293,701
ВСН	+0.56%	3,979,134	3,992,037	3,963,963
FTT	-0.13%	21,040	21,099	20,979

ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-0.41%	73,313	73,700	72,366
ETH	-0.76%	11,255	11,391	10,990
XRP	-0.57%	1,056	1,074	1,045
ADA	-3.63%	1,047	1,073	1,026
CRO	-3.12%	63	65	62
LINK	-1.63%	362	368	356
LTC	-0.20%	489	497	478
UNI	-1.38%	288	292	286
ВСН	+0.46%	217	217	216
FTT	-7.14%	13	14	13



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 4/30/2023 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 4/30/2023 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</u> <u>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 FEE RATE

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

BTC FEE TRENDS

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

TRANSACTION COUNT PER BLOCK

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

ETH GAS PRICES

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

ETH FEE TRENDS

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

NVT RATIO

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

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

ACTIVE ADDRESSES

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

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

FREE FLOAT SUPPLY

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

TRANSACTION COUNT

See prior explanation.

TRANSFER VALUE, ADJUSTED

See prior explanation.

ADDRESSES WITH ≥ \$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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