STATE OF THE MARKET

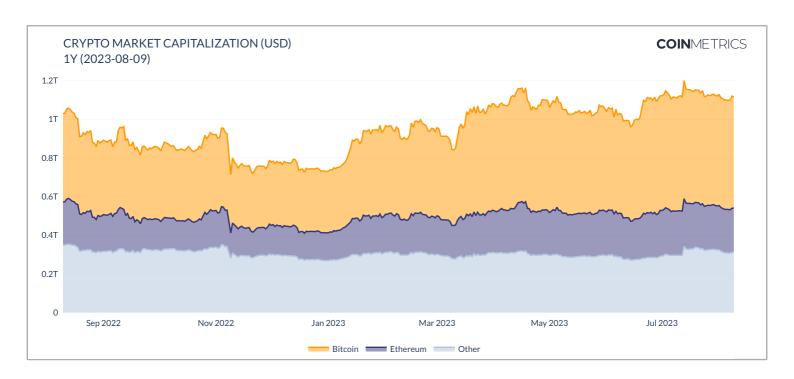
AUG. 3 - 9, 2023

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



MARKET SUMMARY

PayPal is slicing off a piece of the stablecoin pie, partnering with Paxos to roll out "PYUSD," a new dollar-pegged ERC-20 token. Given PayPal's overwhelming bias towards a U.S. userbase, Tether CTO Paolo Ardoino doesn't "expect any impact on USDT," the preferred stablecoin in overseas markets. Circle's USDC is clearly the biggest competitor for American mindshare, but PYUSD will have difficulty displacing other stablecoins without first being listed across a wide array of crypto exchanges. The political response to PayPal's stablecoin has been mixed, predictably split down party lines. House Financial Services Committee chairman Rep. Patrick McHenry (R-N.C.) lauded the launch as a 'clear signal' that stablecoins "hold promise as a pillar of our 21st century payments system," capitalizing on the moment to urge passage for his Clarity for Payment Stablecoins Act. Former committee chair Rep. Maxine Waters (D-Calif.) holds the opposing view, calling McHenry's bill "toxic and problematic" while at the same time decrying PayPal's choice to launch a stablecoin "while there is still no Federal framework for regulation, oversight, and enforcement of these assets." The Federal Reserve clearly hopes to play a role in this oversight, announcing a 'Novel Activities Supervision Program' on Tuesday to help strengthen supervision of banks engaged with "crypto-assets" and "distributed ledger technology (DLT)." In any case, as a fintech network with more than 400 million users, PayPal's launch of the PYUSD on Monday is a significant step forward for Web3 onramps- even as some critics question the firm's choice to issue the ERC-20 on Ethereum's fee-hungry mainnet. Indeed, rollup-based scaling solutions are seeing a renewed burst of momentum, with Coinbase's OP-powered 'Base' opening to the public on Wednesday. Though the protocol was soft-launched for devs on July 13th, the official mainnet launch offers a user-friendly UI for transferring tokens to the Layer-2, bringing the total amount of bridged assets north of \$140M. The Base team is offering 100+ ETH in grants and incentives for groups "building and creating" on the platform, kicking things off with a month-long "Onchain Summer" celebration brimming with Base-themed NFTs and educational "quests." Wednesday's launch of Base mainnet also coincides with the deployment of major dApps on the protocol, with decentralized exchange Uniswap and oracle network Chainlink going live on the L2 earlier this week. With over 100+ applications & service providers live on the platform from day 1, Coinbase hopes their new gateway to the world of Web3 will usher in the next wave of retail & institutional adoption—but whether Base is truly the missing piece in crypto's product-market fit remains to be seen.

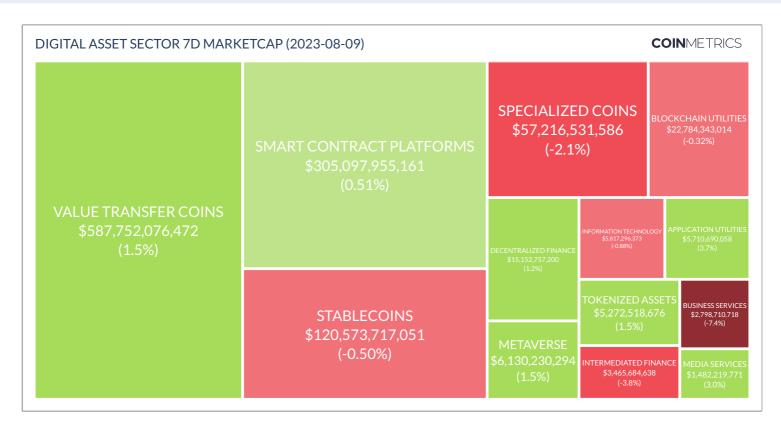


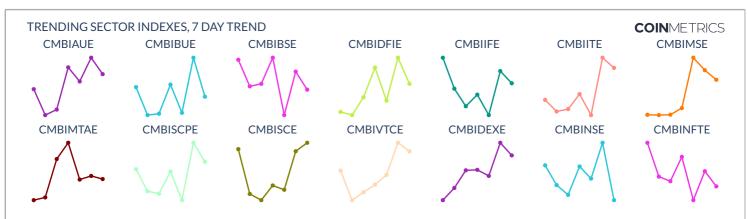
PRICE (CMBI CONSTITUENTS)

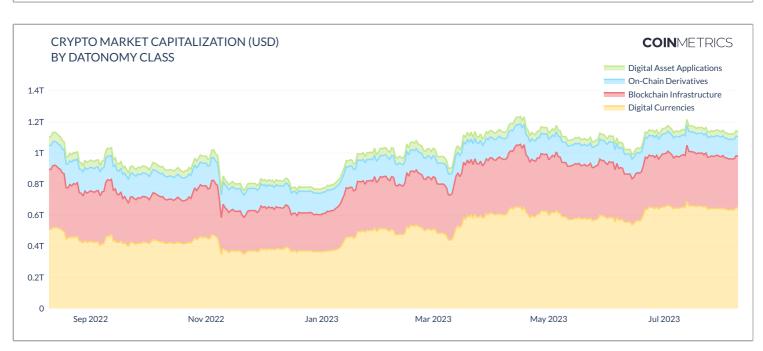
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
втс	\$29,453.14	+0.71%	\$29,887.12	\$29,011.29	+21.80%	\$31,644.02	\$15,799.60
ETH	\$1,848.53	+0.30%	\$1,859.86	\$1,819.53	-2.32%	\$2,129.88	\$1,103.83
SOL	\$24.34	+6.53%	\$24.55	\$22.59	-43.75%	\$46.47	\$8.35
DOT	\$5.02	+0.26%	\$5.05	\$4.94	-45.98%	\$9.41	\$4.27
ADA	\$0.30	+1.31%	\$0.30	\$0.29	-44.05%	\$0.57	\$0.24
DOGE	\$0.07	+0.76%	\$0.08	\$0.07	+4.86%	\$0.14	\$0.06
TRX	\$0.08	-1.10%	\$0.08	\$0.08	+8.28%	\$0.08	\$0.05
BNB	\$243.00	+0.98%	\$246.37	\$240.64	-25.46%	\$353.50	\$228.54
AVAX	\$12.57	+0.56%	\$12.67	\$12.35	-56.43%	\$29.19	\$10.78
XLM	\$0.14	+1.48%	\$0.14	\$0.14	+13.50%	\$0.17	\$0.07
CMBI10	\$3,075.73	+0.66%	\$3,110.79	\$3,030.95	+4.80%	\$3,398.54	\$1,838.40

ASSET CLASSES





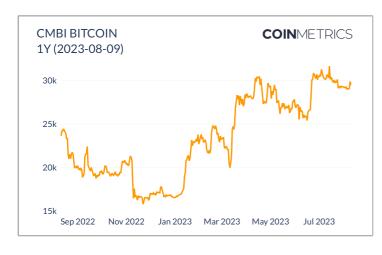


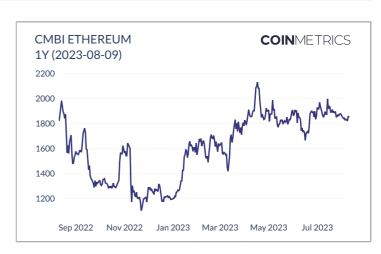
INDEX ROUNDUP

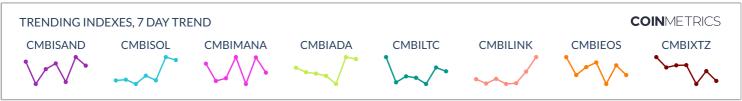
SINGLE ASSET INDEXES

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	\$29,453.14	+0.71%	\$29,887.12	\$29,011.29	+21.80%	\$31,644.02	\$15,799.60
СМВІВТСТ	\$31,644.11	+0.71%	\$32,110.37	\$31,169.39	+21.80%	\$33,997.97	\$16,974.91
СМВІЕТН	\$1,848.53	+0.30%	\$1,859.86	\$1,819.53	-2.32%	\$2,129.88	\$1,103.83
СМВІЕТНТ	\$2,006.75	+0.30%	\$2,019.05	\$1,975.27	-2.32%	\$2,312.19	\$1,198.31



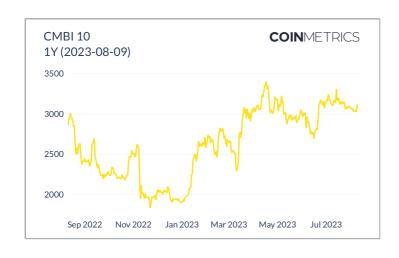




MULTI ASSET INDEXES

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

INDEX	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
CMBI10	\$3,075.73	+0.66%	\$3,110.79	\$3,030.95	+4.80%	\$3,398.54	\$1,838.40
CMBI10E	\$4,553.48	+1.17%	\$4,581.76	\$4,462.02	-30.59%	\$6,768.61	\$3,409.70
CMBI10EX	\$6,600.15	+0.60%	\$6,643.64	\$6,490.86	-13.85%	\$7,991.44	\$4,562.49
CMBI10M	\$10,156.48	+0.05%	\$10,215.84	\$10,115.93	-37.01%	\$16,178.18	\$9,310.27
CMBIBE	\$15,060.27	+0.56%	\$15,235.77	\$14,848.34	+12.56%	\$16,210.93	\$8,387.96





MARKET MOVEMENT

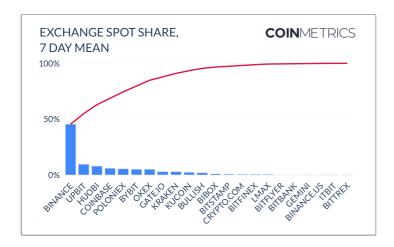
TRADING DIARY, 7 DAY

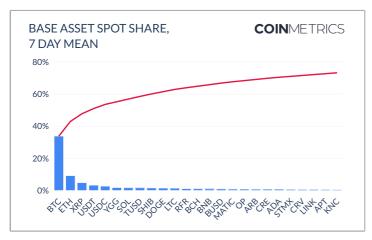
ADVANCING VOLUME \$71,883,375,726

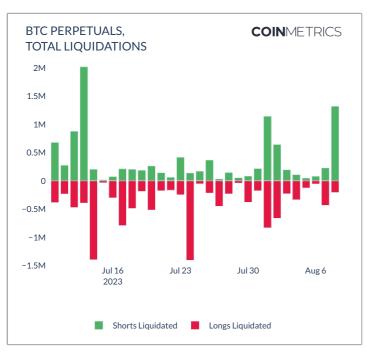
DECLINING VOLUME \$31,035,182,214

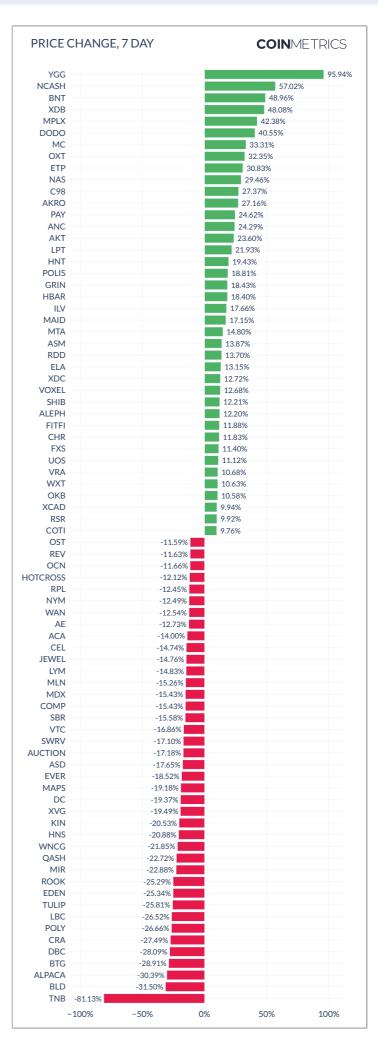
ADVANCES 246

DECLINES 393

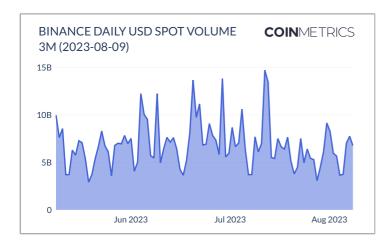


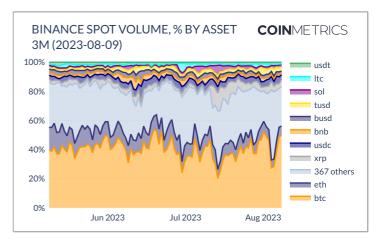


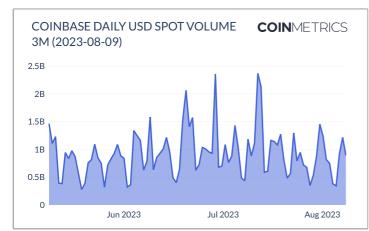


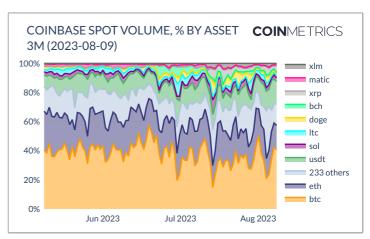


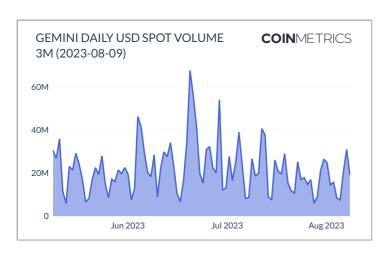
EXCHANGE SPOT VOLUME

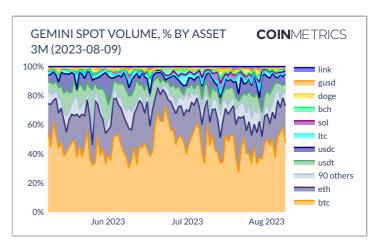


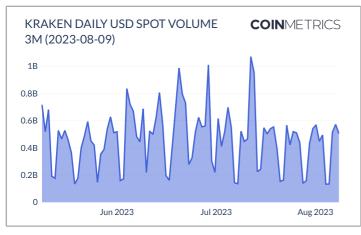


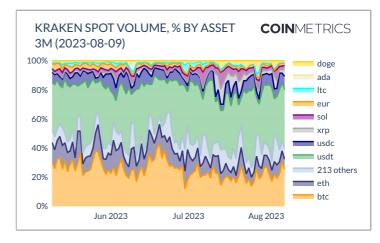




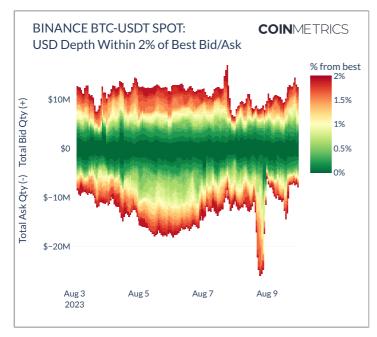


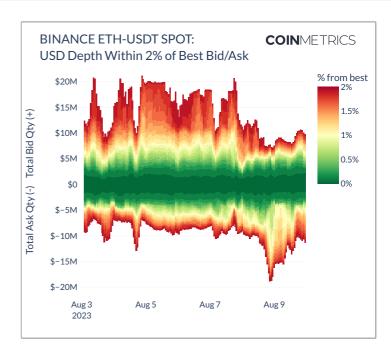


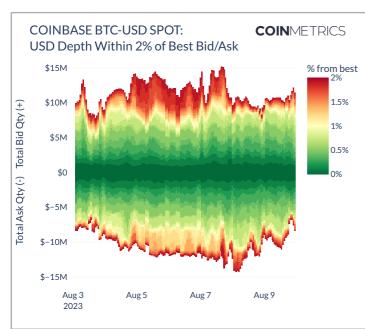


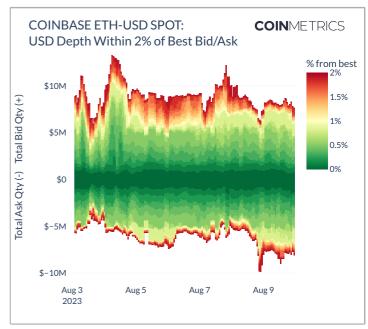


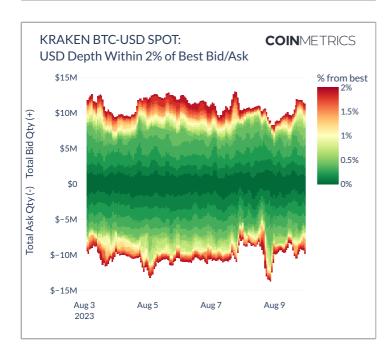
ORDER BOOK DEPTH

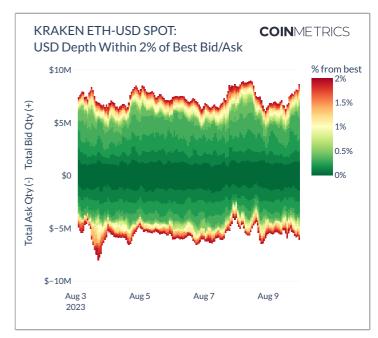




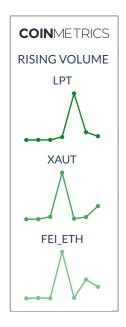


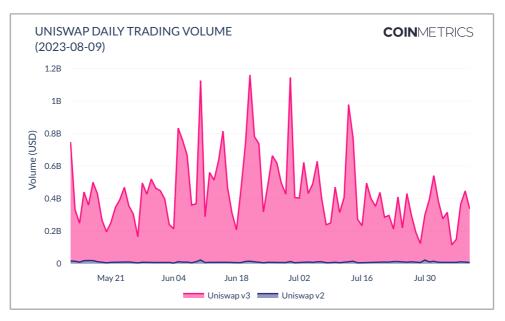


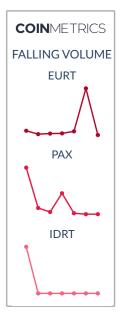


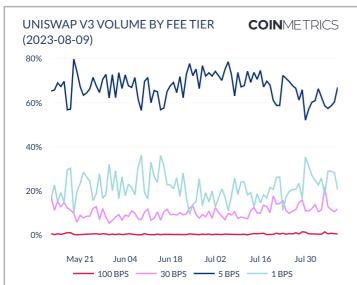


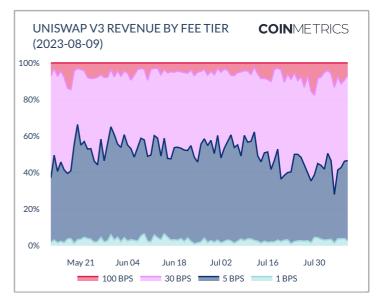
DEX DIGEST

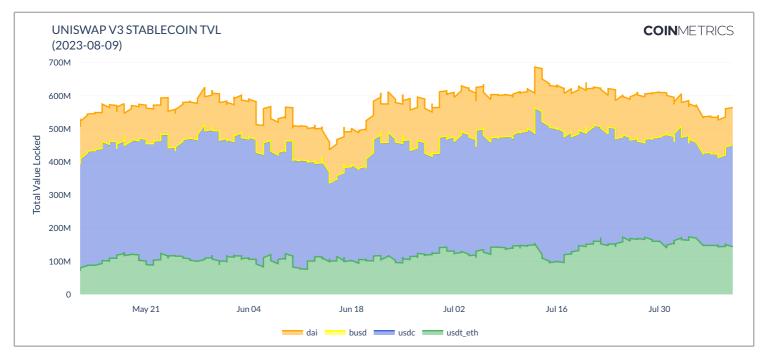






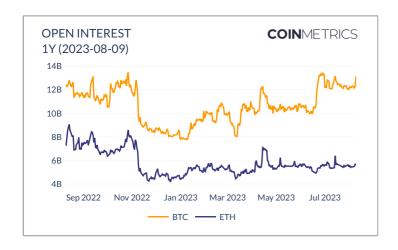


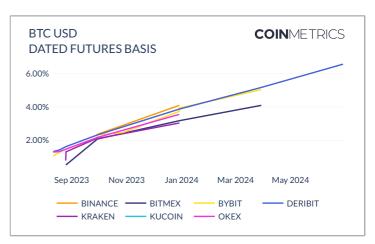




Note: DEX metrics currently capture a subset of the top liquidity pools on the Ethereum-based instantiation of each protocol.

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	+7.88%	12,356,302,690	13,132,947,543	12,115,155,116
ETH	+2.20%	5,513,762,085	5,678,163,555	5,442,740,905
XRP	-6.56%	667,773,558	704,414,293	652,598,649
ADA	-0.26%	111,538,028	112,559,916	110,628,845
LINK	+7.28%	146,955,258	155,094,251	143,236,833
UNI	-19.37%	56,928,668	64,560,354	52,055,700
LTC	-17.29%	462,794,948	506,471,401	418,911,447
CRO	+6.67%	4,819,785	4,970,610	4,548,060
ВСН	+11.64%	274,603,609	303,519,110	256,417,837

FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+43.76%	17,646,131,658	33,124,165,172	5,023,032,115
ETH	-17.89%	7,778,764,755	11,624,010,454	2,925,093,262
XRP	+38.22%	1,986,856,441	2,851,275,005	1,041,670,996
ADA	-39.42%	224,886,196	316,087,270	120,163,716
LINK	+63.38%	417,143,051	691,079,121	187,136,220
UNI	-26.91%	128,934,839	186,511,720	94,117,964
LTC	-68.80%	960,257,982	1,731,091,937	540,060,167
CRO	+176.77%	2,363,392	3,524,621	1,182,087
ВСН	+9.67%	1,039,627,390	2,427,371,467	389,966,727







OPTIONS SNAPSHOT

BTC OPEN INTEREST

ETH OPEN INTEREST

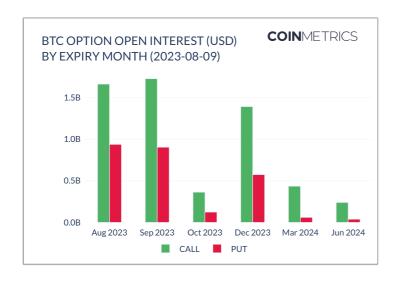
TOTAL	\$8,309,567,144	TOTAL	\$5,124,286,686
CALLS	\$5,749,383,428	CALLS	\$3,876,900,915
PUTS	\$2,560,183,716	PUTS	\$1,247,385,771

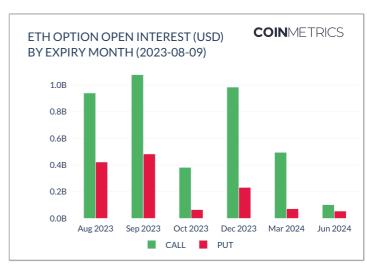


AT THE MONEY OPTIONS

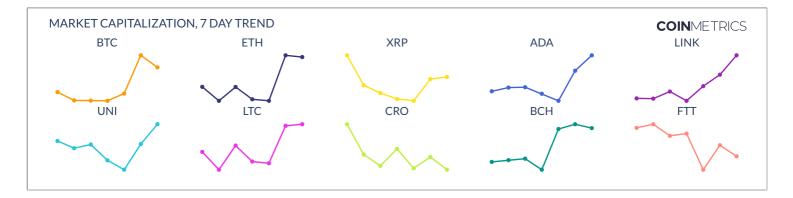
Market greeks, implied volatility, and mark contract prices for BTC options at or near strike price.

			CALLS								PUTS			
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
10.48086	-96.09683	1.22532	0.53404	0.00027	0.3602	0.0194	BTC-10AUG23-29000	0.0002	0.3602	0.00027	-0.46596	-1.15769	-96.09683	10.48086
10.4797	-96.08614	1.07121	0.46544	0.00027	0.2211	0.0109	BTC-10AUG23-29250	0.0001	0.2211	0.00027	-0.53456	-1.33234	-96.08614	10.4797
10.17634	-93.3047	0.91949	0.39842	0.00027	0.2173	0.0039	BTC-10AUG23-29500	0.0016	0.2173	0.00027	-0.60158	-1.50461	-93.3047	10.17634
9.60388	-88.05596	0.77456	0.3348	0.00025	0.2414	0.0008	BTC-10AUG23-29750	0.007	0.2414	0.00025	-0.6652	-1.67008	-88.05596	9.60388
27.39481	-34.24459	10.59196	0.65686	0.00009	0.327	0.0213	BTC-11AUG23-29000	0.0016	0.327	0.00009	-0.34315	-6.88697	-34.24462	27.39483
5.68435	-56.40597	1.18471	0.81367	0.00035	0.3155	0.0145	BTC-11AUG23-29250	0.0032	0.3154	0.00035	-0.18636	-0.28396	-56.41083	5.68486
28.6019	-35.7535	9.8959	0.60922	0.00009	0.3258	0.0093	BTC-11AUG23-29500	0.0065	0.3259	0.00009	-0.39078	-7.88438	-35.75352	28.60191
8.23324	-82.36892	0.86878	0.59174	0.0005	0.3408	0.0057	BTC-11AUG23-29750	0.0114	0.3408	0.0005	-0.40826	-0.62495	-82.36892	8.23324
8.93385	-81.9126	1.70242	0.7311	0.00022	0.3288	0.0233	BTC-12AUG23-29000	0.0033	0.3288	0.00022	-0.2689	-0.68059	-81.9126	8.93385
9.78749	-89.73946	1.57012	0.67147	0.00024	0.3265	0.0171	BTC-12AUG23-29250	0.0056	0.3265	0.00024	-0.32853	-0.83343	-89.73946	9.78749





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	+1.37%	569,262,461,523	579,258,937,400	564,981,518,319
ETH	+1.10%	225,621,845,733	228,003,418,838	224,209,449,514
XRP	-3.15%	63,664,133,665	66,464,592,783	62,054,229,647
ADA	+3.11%	10,098,314,764	10,345,337,654	9,950,892,877
LINK	+8.03%	7,288,368,189	7,703,138,236	7,098,233,299
UNI	+2.39%	6,053,678,902	6,256,741,259	5,858,713,628
LTC	+1.49%	6,097,702,682	6,178,665,694	6,029,185,861
CRO	-2.98%	5,805,318,292	5,926,716,424	5,750,081,483
ВСН	+5.66%	4,494,763,712	4,665,090,524	4,330,841,347
FTT	-5.67%	400,720,082	415,193,219	377,796,640

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+1.35%	403,018,358,729	410,063,234,649	400,001,481,653
ETH	+1.02%	201,652,630,453	203,729,578,429	200,379,003,899
XRP	-2.95%	29,601,766,306	30,894,838,876	28,844,209,014
ADA	+3.17%	9,013,215,205	9,234,400,554	8,881,827,345
LINK	+8.04%	3,840,525,438	4,059,100,323	3,740,340,585
UNI	+2.20%	1,495,332,284	1,543,369,011	1,448,106,368
LTC	+1.42%	5,250,178,032	5,318,367,438	5,193,374,138
CRO	-2.98%	644,362,582	657,841,349	638,222,736
ВСН	+5.64%	3,033,482,630	3,148,077,802	2,923,049,759
FTT	-5.67%	400,720,082	415,193,219	377,796,640

REALIZED CAP

 $\label{thm:continuous} USD\ value\ for\ all\ native\ units\ based\ on\ the\ USD\ closing\ price\ on\ the\ day\ that\ a\ unit\ last\ moved.$

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.08%	395,924,999,154	396,121,208,703	395,789,755,932
ETH	-0.04%	161,120,572,322	161,251,706,679	160,968,883,960
XRP	-0.44%	53,388,153,074	53,518,548,789	53,283,891,817
ADA	-0.23%	16,314,399,315	16,340,667,832	16,291,199,934
LINK	+0.35%	8,291,676,009	8,315,853,541	8,281,703,167
UNI	+0.06%	8,495,343,920	8,502,882,882	8,486,722,584
LTC	-0.14%	6,939,385,280	6,945,883,187	6,935,925,309
CRO	+0.01%	22,429,241,212	22,429,874,548	22,428,557,764
всн	-0.11%	4,730,139,475	4,734,364,090	4,728,963,263
FTT	-0.08%	844,506,896	844,957,848	843,873,335

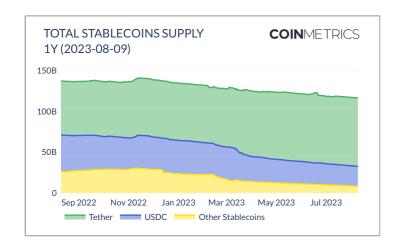
MARKET VALUE TO REALIZED VALUE

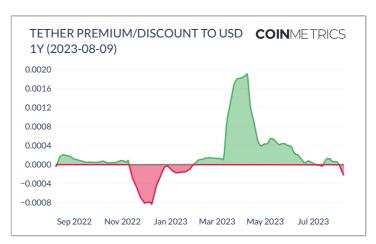
The ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+1.28%	1.44	1.46	1.43
ETH	+1.15%	1.40	1.41	1.39
XRP	-2.73%	1.19	1.24	1.16
ADA	+3.34%	0.62	0.63	0.61
LINK	+7.65%	0.88	0.93	0.86
UNI	+2.33%	0.71	0.74	0.69
LTC	+1.64%	0.88	0.89	0.87
CRO	-2.99%	0.26	0.26	0.26
всн	+5.78%	0.95	0.99	0.92
FTT	-5.60%	0.47	0.49	0.45



STABLECOINS REPORT





MARKET CAPITALIZATION

USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.01%	38,988,210,105	39,012,825,116	38,964,173,633
USDT	+0.01%	887,118,546	887,678,624	886,571,632
USDT_TRX	+0.01%	43,986,802,212	44,014,573,059	43,959,684,077
PAX	+0.67%	505,654,797	509,362,265	501,022,451
DAI	-0.09%	4,037,668,242	4,050,636,452	4,026,170,601
USDC	+0.78%	24,255,176,223	24,415,394,331	24,159,426,020
BUSD	-2.96%	3,418,913,986	3,495,637,290	3,392,330,750
GUSD	-0.11%	360,254,374	360,860,322	359,613,428

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-8.05%	2,970,910,850	4,409,942,558	1,410,879,077
USDT	+2.20%	230,692	726,954	29,381
USDT_TRX	+3.06%	9,205,551,005	11,560,084,614	5,317,810,515
PAX	-66.13%	19,841,434	48,986,828	717,478
DAI	+31.45%	898,242,879	2,168,038,598	82,551,684
USDC	-14.31%	3,717,488,610	5,253,796,380	1,429,535,167
BUSD	-97.92%	94,921,953	408,626,266	8,518,226
GUSD	-19.62%	933,219	1,732,119	343,797





TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
ASSET	/D CHANGE	/D AVERAGE	/DIMAX	/D MIIN
USDT_ETH	+8.25%	98,139	113,811	73,533
USDT	+10.34%	22	32	12
USDT_TRX	-0.81%	1,856,366	2,120,225	1,477,085
PAX	+34.74%	102	132	64
DAI	-8.42%	4,076	4,551	3,412
USDC	-0.97%	32,447	38,421	23,969
BUSD	-28.42%	489	665	386
GUSD	-23.33%	67	90	32

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

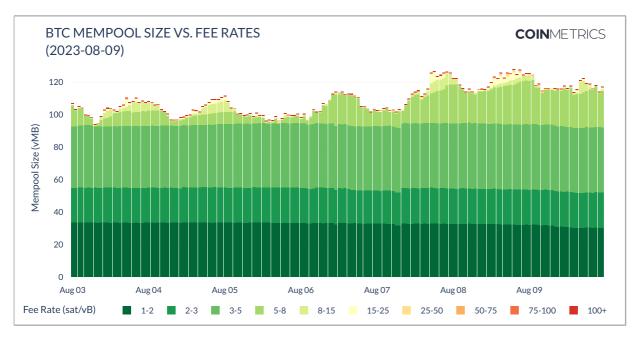
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-29.40%	669	849	499
USDT	-91.89%	2,474	7,709	195
USDT_TRX	-24.99%	190	208	150
PAX	+86.09%	6,708	11,067	1,247
DAI	+55.00%	2,404	3,999	1,544
USDC	+2.33%	1,019	1,244	774
BUSD	-42.25%	652	1,000	237
GUSD	+271.74%	3,452	9,990	499

VELOCITY

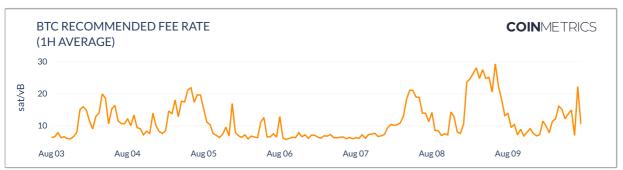
Number of times that an average native unit among the active supply has been transferred in the past 1 year

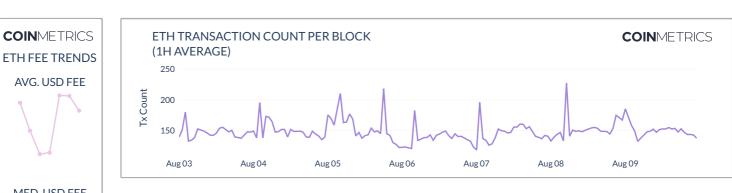
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.66%	36.11	36.23	36.00
USDT	-1.00%	34.64	34.86	34.11
USDT_TRX	+0.68%	68.17	68.43	67.97
PAX	-0.34%	35.41	35.54	35.25
DAI	-2.25%	247.47	250.28	244.65
USDC	-2.02%	129.37	130.54	127.59
BUSD	+3.29%	78.52	79.11	76.40
GUSD	-0.49%	15.54	15.59	15.51

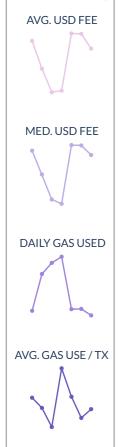
FEE MARKET

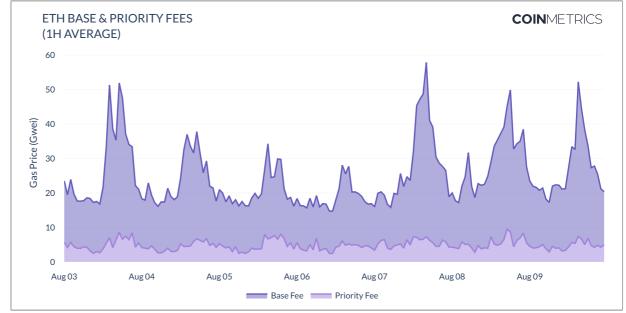












NETWORK DATA FUNDAMENTALS



ACTIVE ADDRESSES

Count of unique addresses that were active in the network

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+2.62%	970,401	1,057,273	874,562
ETH	+3.26%	459,122	483,718	426,440
XRP	-8.95%	85,421	189,349	26,138
ADA	-13.85%	40,746	48,727	31,805
LINK	+10.97%	2,074	2,388	1,666
UNI	-8.98%	731	802	610
LTC	-0.81%	243,871	266,076	209,975
CRO	-24.40%	274	332	251
ВСН	+120.33%	64,679	160,726	32,176
FTT	-36.03%	113	152	80

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%	13,769,825	13,770,680	13,768,739
ETH	-0.04%	109,743,811	109,762,641	109,718,476
XRP	+0.21%	46,491,239,923	46,576,279,140	46,476,484,952
ADA	+0.13%	30,626,410,095	30,637,200,424	30,596,391,148
LINK	+0.00%	526,938,922	526,946,923	526,925,542
UNI	-0.19%	247,014,870	247,171,386	246,672,180
LTC	-0.04%	63,295,753	63,316,179	63,282,565
CRO	-0.00%	11,099,521,648	11,099,592,121	11,099,368,546
всн	+0.02%	13,139,499	13,141,353	13,137,822
FTT	+0.00%	328,895,104	328,895,104	328,895,104

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

TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+6.74%	452,885	611,086	318,338
ETH	+2.58%	1,065,628	1,124,372	987,506
XRP	-5.33%	1,165,868	1,279,339	1,019,273
ADA	-28.00%	69,391	84,386	53,701
LINK	+41.12%	2,576	3,480	1,944
UNI	-14.01%	878	1,035	731
LTC	-2.41%	135,583	153,144	114,443
CRO	-23.53%	315	374	281
ВСН	+199.95%	48,816	153,043	14,729
FTT	-43.02%	152	319	81

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-0.79%	3,191,736,166	4,057,730,346	1,907,933,746
ETH	+17.86%	2,042,059,882	2,481,549,167	1,267,351,063
XRP	+47.09%	845,466,219	3,146,724,303	197,558,779
ADA	-25.14%	6,940,444,798	8,065,839,936	5,632,494,551
LINK	+41.23%	42,544,370	69,774,520	17,725,541
UNI	+195.50%	19,354,312	37,578,639	7,056,059
LTC	-13.75%	75,706,209	88,819,553	59,025,478
CRO	-3.42%	735,190	1,250,272	436,801
ВСН	+17.70%	31,082,731	70,823,263	11,637,062
FTT	-86.83%	1,383,264	3,462,835	164,588

ADDRESSES ≥ \$1

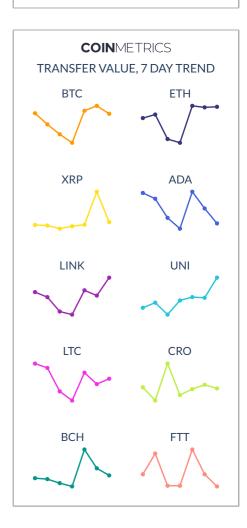
Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.08%	40,517,284	40,588,873	40,488,492
ETH	+0.48%	60,737,970	60,968,535	60,589,858
XRP	+0.16%	4,739,916	4,743,659	4,736,184
ADA	+0.16%	3,564,201	3,570,019	3,559,209
LINK	+0.37%	526,748	527,916	525,960
UNI	+0.25%	285,472	286,031	285,264
LTC	+0.60%	2,391,007	2,400,199	2,379,017
CRO	-0.09%	150,131	150,238	150,057
ВСН	+1.05%	4,565,397	4,603,517	4,533,929
FTT	-0.24%	21,478	21,523	21,369

ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.50%	73,566	74,051	73,353
ETH	+0.81%	10,509	10,582	10,453
XRP	-1.74%	1,348	1,381	1,326
ADA	+1.08%	836	845	827
LINK	+6.99%	422	444	412
UNI	-2.15%	324	328	318
LTC	-0.41%	482	486	477
CRO	-2.04%	48	49	48
всн	+3.87%	342	351	335
FTT	+0.00%	14	15	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. More information on Coin Metrics Indexes.

CMBI BITCOIN

Daily level for Coin Metrics Bletchley Index (CMBI) Bitcoin for the previous month. CMBI Bitcoin tracks the price and performance of Bitcoin by sourcing BTC/USD market prices from numerous global liquidity venues. As of 8/6/2023 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 8/6/2023 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 liquidty pools covered by Coin Metrics. Balance held by each liquidity pool smart contract is retrieved using ATLAS, Coin Metrics' universal blockchain search engine. More information on Coin Metrics ATLAS.

FUTURES OPEN INTEREST

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

FUTURES BASIS

The futures basis is the percent difference between the price of a dated futures contract and the price of its underlying spot market, calculated using the Coin Metrics Reference Rate. In addition to calculating futures basis manually, Coin Metrics also offers annualized <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 Data Encyclopedia.

FUNDING RATES

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

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

PERP & NON-PERP OPEN INTEREST

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

A perpetual ("perp") contract is a special type of futures contract, which is an agreement to buy or sell a cryptoassets at a predetermined price at a specified time in the future. Perpetuals do not have 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, marketmoving 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. <u>More information on Coin Metrics' Reference Rates.</u>

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. <u>More information</u> 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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