STATE OF THE MARKET

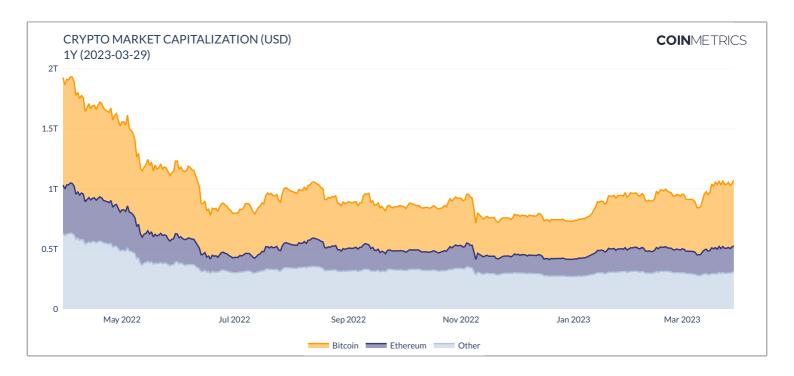
MAR. 23 - 29, 2023

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



MARKET SUMMARY

The SEC stole the show for weeks, but the CFTC just fired the biggest shot yet in the crusade to cull crypto. In a 74-page complaint issued Monday, the U.S. commodities regulator sued digital asset behemoth Binance over a lack of compliance controls. The suit accuses the exchange of turning a blind eve to illegal activity, quoting internal conversations in which executives acknowledged many users (including terrorist group Hamas) were "here for crime." The CFTC's filing personally implicates CEO Changpeng "CZ" Zhao, asserting he "answers to no one but himself." Interestingly, the suit also claims that several assets - BTC, LTC, ETH, USDT, and BUSD - are commodities, contradicting statements from SEC Chair Gensler & NY Attorney General Letitia James on ETH's potential status as an unregistered security. Shortly before the CFTC announcement, Binance ended their 0fee trading program, triggering a drop in volume & liquidity across the exchange's major trading pairs. Meanwhile, CZ's former rival Sam Bankman-Fried continues to earn ire from the U.S. government, with prosecutors unveiling a 'superseding indictment' alleging SBF attempted to bribe Chinese officials with "approximately \$40 million" in crypto. Also joining the government custody club is Terraform Labs founder Do Kwon, arrested in Montenegro while traveling under a false name. In addition to Kwon's arrest warrant from South Korea, the U.S. announced their own indictment on Thursday, charging Kwon with various forms of fraud over a lack of disclosures around the LUNA & TerraUSD tokens. While many regulators are engaged in a cryptocurrency crackdown, Hong Kong has made a surprising pivot in their attitude towards the industry. Despite the ban on crypto transactions in mainland China, HK-based banks were reportedly approved to solicit business from the sector (though authorities in Beijing maintain hardline stances on strict KYC/AML requirements). The policy shift has lured many crypto firms back to the region, including crypto exchange OKX, once headquartered in Beijing before China's crypto ban forced a relocation to the Seychelles. U.S. exchanges are also eyeing overseas opportunities, with Coinbase & Gemini announcing plans to set up derivatives platforms outside of the U.S. in an attempt to fill gaps left by FTX. Though perpetual futures have historically been the primary derivative of choice, BTC options recently flipped futures in terms of open interest, with the value of outstanding contracts on Deribit & CME near-doubling since the beginning of March. The uptick in CME options is especially indicative of renewed appetite from traditional institutions. NASDAQ claims the same, with the exchange's leadership projecting a Q2 launch of their digital asset custody service. Even as regulatory bodies slam crypto with increasingly contradictory enforcement actions, TradFi giants move towards digital assets with heightened clarity, scooping up picks & shovels left behind in the 2021 gold rush wreckage.

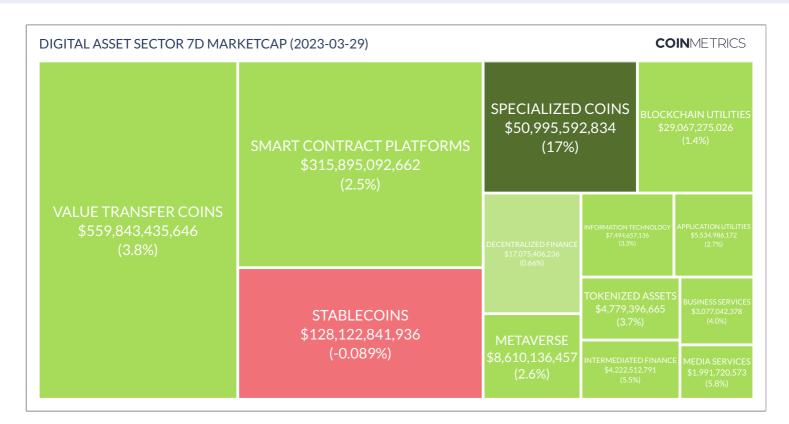


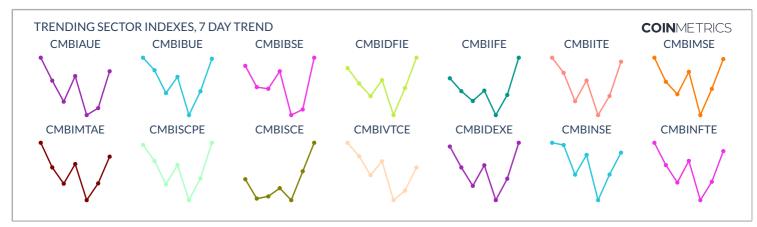
PRICE (CMBI CONSTITUENTS)

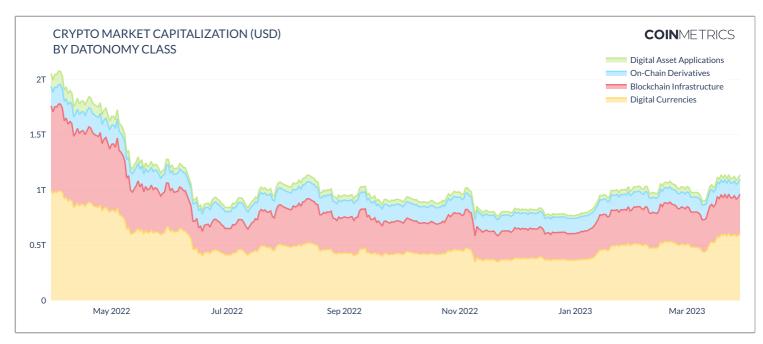
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
втс	\$28,382.20	+0.70%	\$28,382.20	\$27,045.67	-37.89%	\$46,485.07	\$15,799.60
ETH	\$1,806.88	-0.36%	\$1,813.33	\$1,710.71	-45.15%	\$3,496.01	\$923.00
SOL	\$21.16	-3.82%	\$22.00	\$19.77	-82.85%	\$136.45	\$8.35
DOT	\$6.20	-1.62%	\$6.30	\$5.85	-71.11%	\$23.09	\$4.27
ADA	\$0.39	+3.46%	\$0.39	\$0.34	-66.49%	\$1.19	\$0.24
DOGE	\$0.08	-1.33%	\$0.08	\$0.07	-45.22%	\$0.17	\$0.05
MATIC	\$1.12	-0.01%	\$1.12	\$1.04	-31.15%	\$1.70	\$0.34
BNB	\$316.05	-4.13%	\$329.67	\$307.74	-26.20%	\$449.79	\$189.63
AVAX	\$17.35	-0.69%	\$17.47	\$16.45	-81.75%	\$98.91	\$10.78
АТОМ	\$11.46	-2.14%	\$11.71	\$10.84	-60.31%	\$32.00	\$5.73
CMBI10	\$3,061.19	+0.06%	\$3,061.19	\$2,909.29	-46.59%	\$5,944.64	\$1,838.40

ASSET CLASSES





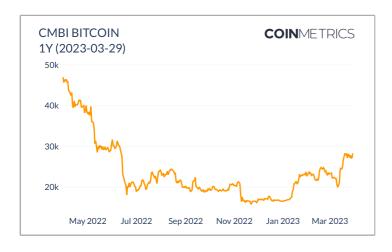


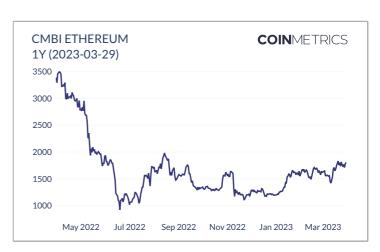
INDEX ROUNDUP

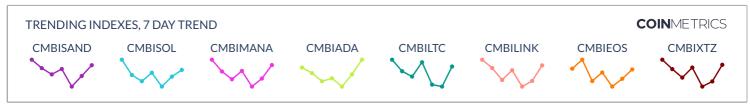
SINGLE ASSET INDEXES

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	\$28,382.20	+0.70%	\$28,382.20	\$27,045.67	-37.89%	\$46,485.07	\$15,799.60
СМВІВТСТ	\$30,493.50	+0.70%	\$30,493.50	\$29,057.55	-37.89%	\$49,943.01	\$16,974.91
СМВІЕТН	\$1,806.88	-0.36%	\$1,813.32	\$1,710.71	-45.15%	\$3,496.01	\$923.00
СМВІЕТНТ	\$1,961.54	-0.36%	\$1,968.53	\$1,857.13	-45.15%	\$3,795.25	\$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	\$3,061.19	+0.06%	\$3,061.19	\$2,909.29	-46.59%	\$5,944.64	\$1,838.40
CMBI10E	\$5,200.79	-0.96%	\$5,251.10	\$4,894.04	-64.06%	\$15,214.45	\$3,409.70
CMBI10EX	\$6,878.35	-0.84%	\$6,936.74	\$6,512.10	-55.73%	\$16,446.91	\$4,169.19
CMBI10M	\$10,391.48	+1.23%	\$10,391.48	\$9,879.46	-42.37%	\$18,858.74	\$9,310.27
CMBIBE	\$14,589.15	+0.34%	\$14,589.15	\$13,872.04	-40.54%	\$25,343.40	\$8,387.96





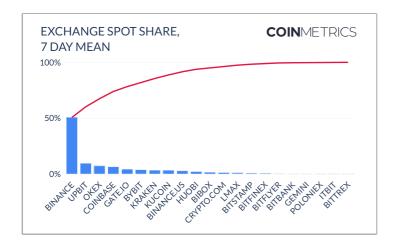
MARKET MOVEMENT

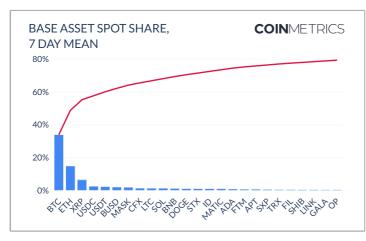
TRADING DIARY, 7 DAY

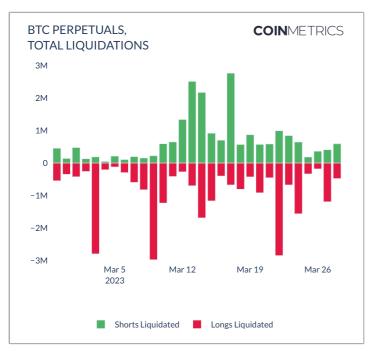
ADVANCING VOLUME \$61,675,042,744

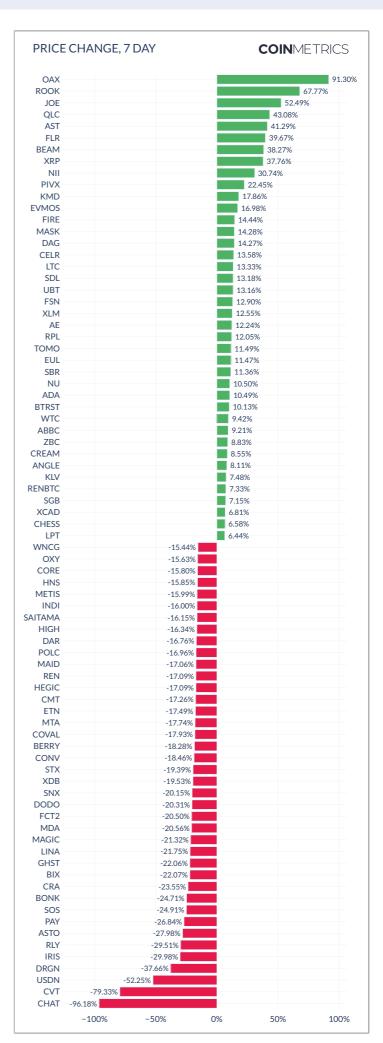
DECLINING VOLUME \$106,863,018,791

ADVANCES 133
DECLINES 505

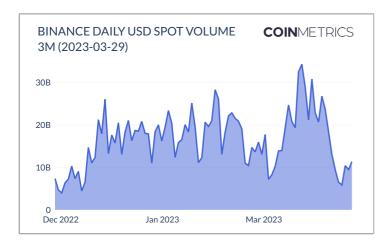


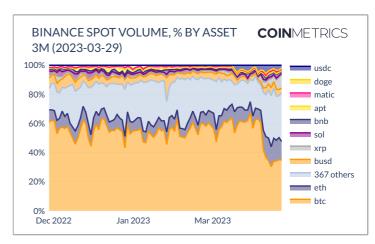


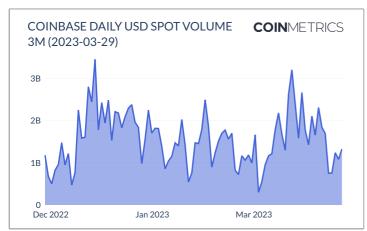


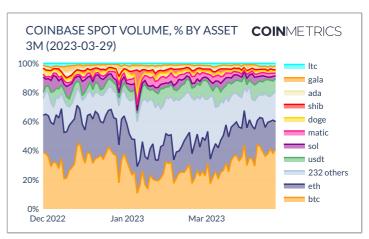


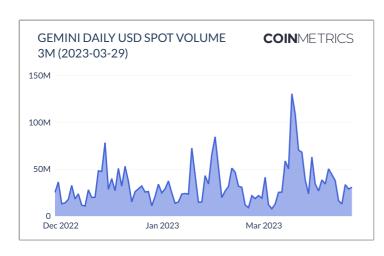
EXCHANGE SPOT VOLUME

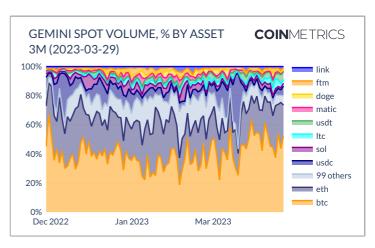


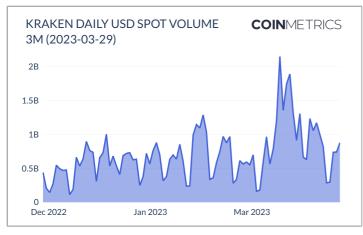


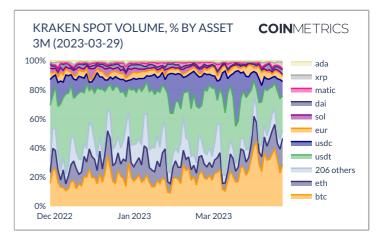




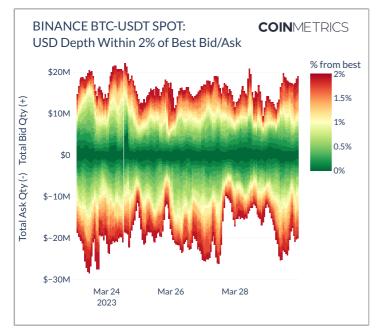


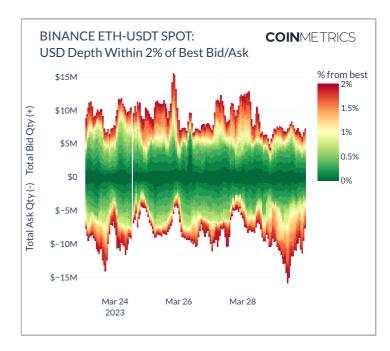


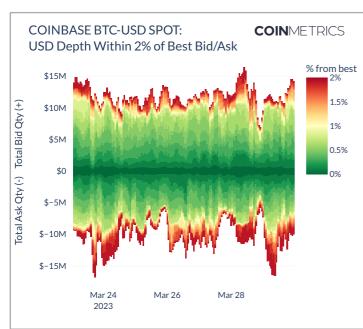


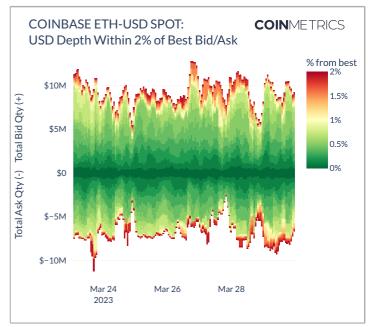


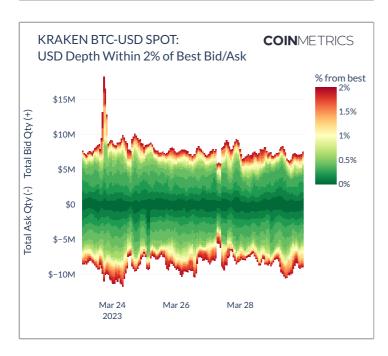
ORDER BOOK DEPTH

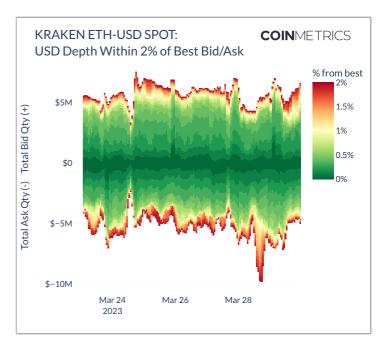






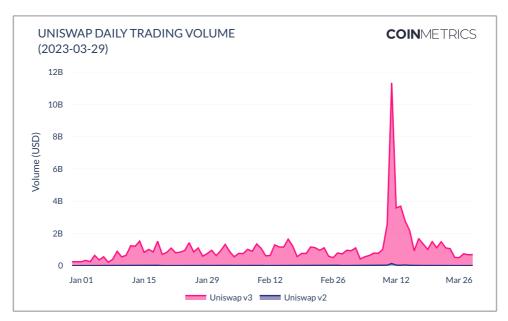


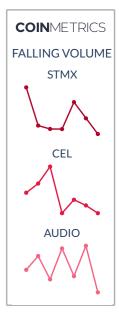


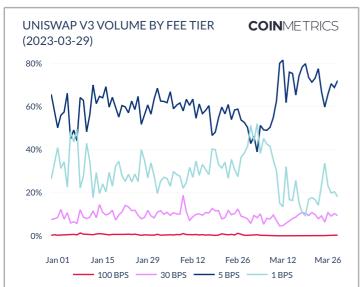


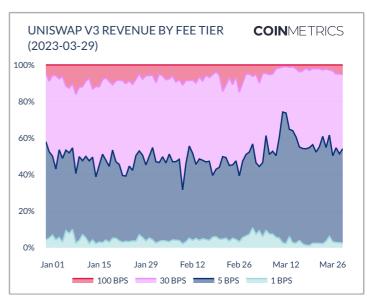
DEX DIGEST

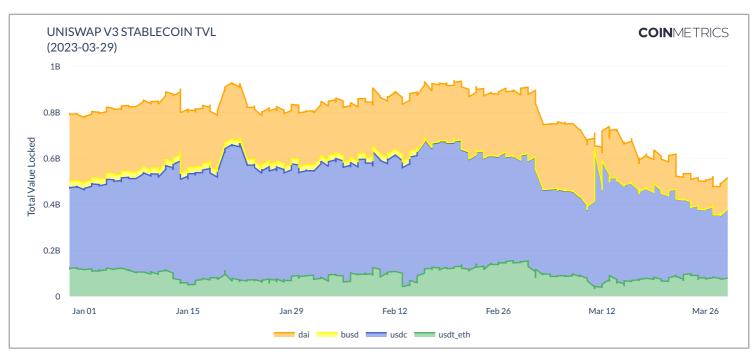






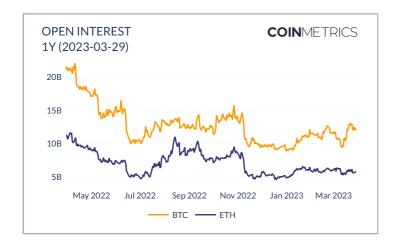


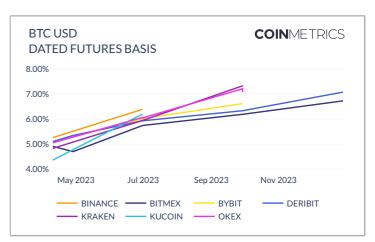




Note: DEX metrics currently capture a subset of the top liquidity pools on the Ethereum-based instantiation of each protocol.

FUTURES FEED





OPEN INTEREST

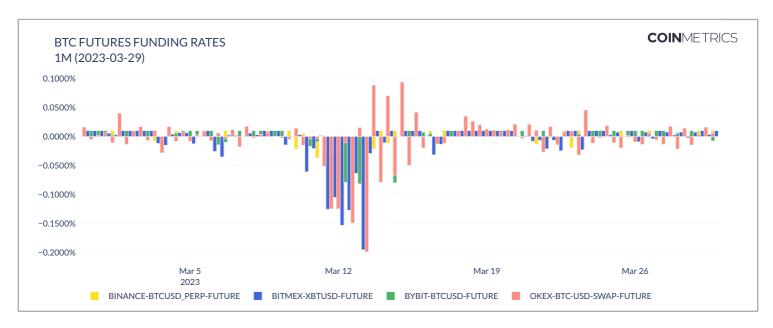
Sum of all reported open interest from futures markets in USD

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-3.48%	12,399,612,744	12,967,089,895	11,989,521,877
ETH	-0.34%	5,801,016,514	6,189,643,584	5,635,104,162
XRP	+41.03%	633,094,717	935,123,448	468,755,155
ADA	+5.90%	175,412,417	183,407,184	167,334,689
LINK	+2.79%	108,477,365	117,843,826	105,889,549
CRO	-1.69%	18,554,911	19,414,234	17,853,215
LTC	-3.81%	470,140,632	517,843,610	437,580,798
UNI	-0.73%	43,944,752	46,223,641	42,381,759
ВСН	-0.69%	163,790,752	167,321,802	161,602,434

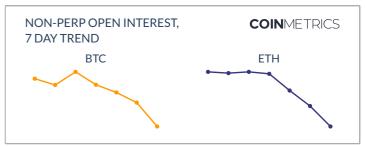
FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-20.29%	37,016,227,374	53,156,541,838	20,304,168,853
ETH	-25.68%	18,179,335,896	23,866,704,858	10,311,307,351
XRP	+116.74%	4,552,581,419	8,082,362,814	1,965,772,317
ADA	-7.33%	459,040,327	650,790,737	255,944,170
LINK	-9.92%	330,332,253	456,570,107	196,632,162
CRO	-29.60%	1,411,971	2,213,665	749,937
LTC	-65.99%	1,573,386,934	2,906,752,354	988,656,660
UNI	-28.30%	92,134,880	143,755,776	62,022,942
всн	-5.04%	127,435,414	191,404,628	78,567,132







OPTIONS SNAPSHOT

BTC OPEN INTEREST

ETH OPEN INTEREST

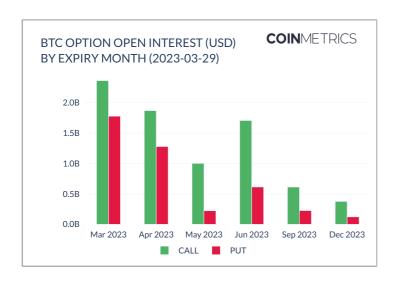
TOTAL	\$11,269,926,871	TOTAL	\$6,836,758,942
CALLS	\$7,326,443,774	CALLS	\$5,007,642,573
PUTS	\$3,943,483,098	PUTS	\$1,829,116,369

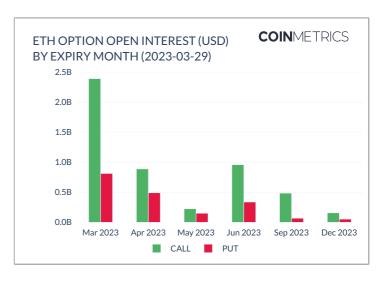


AT THE MONEY OPTIONS

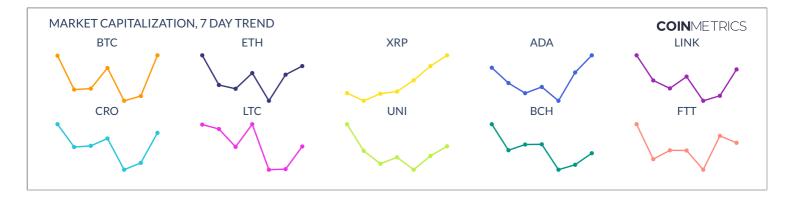
Market greeks, implied volatility, and mark contract prices for BTC options at or near strike price.

		(CALLS								PUT	S		
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
7.24157	-101.36639	0.94731	0.66801	0.00033	0.8261	0.0655	BTC-30MAR23-26500	0	0.8261	0.00033	-0.33199	-0.50374	-101.36639	7.24157
7.78693	-108.38831	0.82973	0.58261	0.00035	0.7871	0.0567	BTC-30MAR23-26750	0.0001	0.7871	0.00035	-0.41739	-0.635	-108.38831	7.78693
7.95691	-110.07013	0.70464	0.49292	0.00036	0.7515	0.048	BTC-30MAR23-27000	0.0001	0.7515	0.00036	-0.50708	-0.77379	-110.07013	7.95691
7.72675	-106.90602	0.57933	0.40403	0.00035	0.7488	0.0394	BTC-30MAR23-27250	0.0004	0.7488	0.00035	-0.59597	-0.91279	-106.90602	7.72675
21.9326	-40.44938	4.89407	0.45647	0.00012	0.7466	0.0669	BTC-31MAR23-26500	0.0013	0.7466	0.00012	-0.54353	-7.19026	-40.44938	21.9326
83.77234	-12.00301	64.49666	0.58666	0.00002	0.6777	0.0502	BTC-31MAR23-27000	0.0022	0.6777	0.00002	-0.41334	-150.65122	-12.00309	83.77288
21.62648	-27.03481	4.35895	0.31954	0.00011	0.6223	0.0792	BTC-7APR23-26500	0.0121	0.6223	0.00011	-0.68073	-11.6167	-27.02234	21.61651
20.07375	-25.09377	3.72503	0.27179	0.0001	0.6112	0.066	BTC-7APR23-27000	0.0165	0.6112	0.0001	-0.72847	-12.55168	-25.07954	20.06237
25.018	-31.27349	9.69266	0.65768	0.0001	0.6244	0.0905	BTC-14APR23-26500	0.0226	0.6244	0.0001	-0.34234	-6.27977	-31.27395	25.01837
26.21253	-32.7667	8.99562	0.60554	0.0001	0.6185	0.0785	BTC-14APR23-27000	0.0281	0.6185	0.0001	-0.39449	-7.2784	-32.76708	26.21284





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	+0.03%	536,292,519,356	548,812,901,631	524,904,198,224
ETH	-1.36%	211,001,719,672	217,131,272,349	204,659,134,524
XRP	+22.27%	47,181,220,932	54,441,237,556	42,506,415,221
ADA	+2.70%	12,330,570,355	13,009,729,038	11,754,452,434
LINK	-3.06%	7,201,749,625	7,626,550,487	6,873,042,354
CRO	-0.98%	6,837,994,393	7,010,919,644	6,647,416,044
LTC	-2.36%	6,653,879,724	6,800,890,028	6,467,483,501
UNI	-4.84%	5,867,375,649	6,256,896,188	5,632,179,777
ВСН	-4.33%	2,397,570,606	2,494,206,681	2,324,655,124
FTT	-3.14%	429,206,925	446,781,525	412,465,566

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.01%	383,367,435,437	392,250,046,593	375,206,179,145
ETH	-1.38%	193,311,936,295	198,941,378,863	187,498,458,897
XRP	+22.32%	21,387,748,310	24,687,362,076	19,268,111,672
ADA	+2.67%	10,870,397,245	11,466,236,589	10,362,659,649
LINK	-3.07%	3,668,048,086	3,884,490,148	3,500,642,273
CRO	-0.99%	874,175,126	896,294,260	849,815,913
LTC	-2.42%	5,843,766,744	5,973,239,773	5,679,037,504
UNI	-4.72%	1,352,514,036	1,440,702,343	1,298,557,197
ВСН	-4.33%	1,614,042,168	1,679,057,082	1,564,996,617
FTT	-3.14%	413,380,499	430,307,060	397,256,455

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	+0.37%	386,446,367,707	387,286,680,048	385,846,201,553
ETH	+0.10%	160,836,867,643	161,406,929,311	160,330,936,248
XRP	+1.88%	48,925,737,028	49,648,731,833	48,625,068,509
ADA	+1.13%	17,589,182,447	17,715,383,714	17,518,088,473
LINK	-0.59%	8,368,956,318	8,399,578,541	8,332,615,021
CRO	+0.01%	22,633,412,108	22,634,329,185	22,632,712,418
LTC	+0.22%	6,824,292,033	6,834,573,482	6,816,031,933
UNI	-0.21%	9,650,365,046	9,671,336,191	9,640,271,323
ВСН	-0.06%	4,520,824,784	4,522,857,026	4,518,122,565
FTT	-0.13%	916,637,292	917,887,770	915,784,494

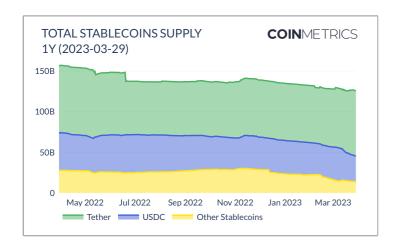
MARKET VALUE TO REALIZED VALUE

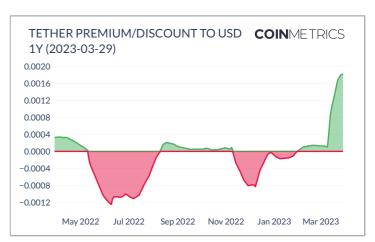
The ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-0.34%	1.39	1.42	1.36
ETH	-1.46%	1.31	1.35	1.28
XRP	+20.02%	0.96	1.10	0.87
ADA	+1.56%	0.70	0.73	0.67
LINK	-2.49%	0.86	0.91	0.82
CRO	-0.99%	0.30	0.31	0.29
LTC	-2.57%	0.98	1.00	0.95
UNI	-4.64%	0.61	0.65	0.58
всн	-4.28%	0.53	0.55	0.51
FTT	-3.01%	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	+2.77%	35,167,791,686	35,324,686,520	34,339,162,356
USDT	-0.14%	888,678,865	889,431,241	888,167,229
USDT_TRX	-0.14%	44,166,760,410	44,204,153,046	44,141,332,476
PAX	-1.57%	765,339,183	783,059,822	752,613,552
DAI	-3.36%	5,194,550,130	5,280,348,285	5,103,118,285
USDC	-3.43%	31,974,622,578	32,635,693,291	31,515,084,710
BUSD	-4.98%	7,907,065,627	8,066,043,907	7,664,654,753
GUSD	-0.90%	393,279,440	394,892,780	391,353,995

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-25.45%	4,006,956,033	5,896,409,123	1,859,369,458
USDT	-64.92%	249,043	1,078,402	36,175
USDT_TRX	-24.71%	8,761,422,726	12,210,172,389	4,440,629,763
PAX	-77.78%	18,924,855	56,975,855	4,383,506
DAI	+37.37%	238,406,482	381,328,500	126,959,368
USDC	-51.92%	7,072,476,387	10,154,941,651	3,293,503,664
BUSD	+32.04%	151,702,691	441,360,121	8,833,334
GUSD	-15.59%	1,675,265	3,483,073	93,985





TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-9.52%	117,335	137,635	90,007
USDT	+86.67%	24	56	9
USDT_TRX	+3.18%	1,867,976	2,035,601	1,534,503
PAX	+8.96%	170	243	84
DAI	-12.59%	6,062	7,580	4,697
USDC	-14.20%	51,396	56,793	42,698
BUSD	+798.70%	3,309	11,072	1,014
GUSD	-1.89%	90	116	43

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

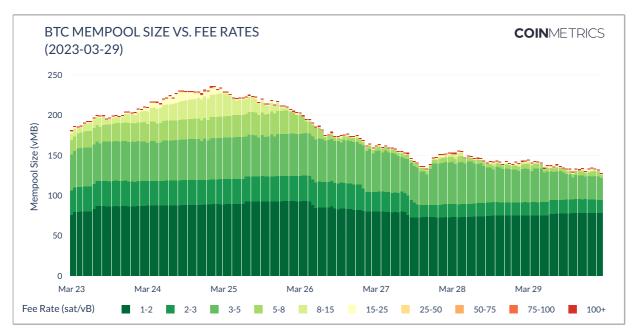
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+3.83%	599	746	448
USDT	-94.38%	2,503	8,160	135
USDT_TRX	+17.84%	142	169	120
PAX	-89.18%	8,062	13,768	1,490
DAI	-23.43%	699	1,179	361
USDC	-34.33%	963	1,523	650
BUSD	-24.51%	474	717	271
GUSD	-70.00%	2,795	8,965	383

VELOCITY

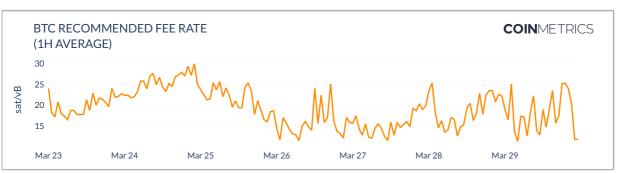
Number of times that an average native unit among the active supply has been transferred in the past 1 year

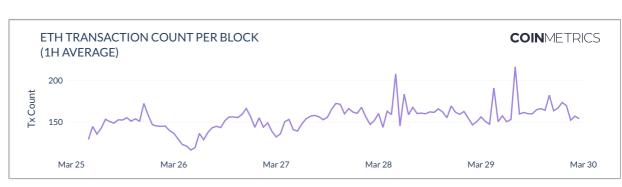
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-3.49%	41.52	42.81	41.24
USDT	-0.29%	3.15	3.15	3.14
USDT_TRX	+0.42%	60.89	61.02	60.77
PAX	-0.62%	18.30	18.50	18.08
DAI	+4.15%	247.44	252.49	242.42
USDC	+4.63%	112.86	115.07	109.96
BUSD	+5.30%	37.02	38.26	36.34
GUSD	-0.74%	19.59	19.65	19.50

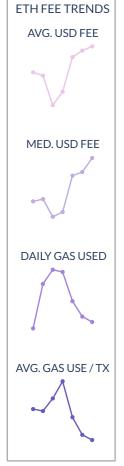
FEE MARKET



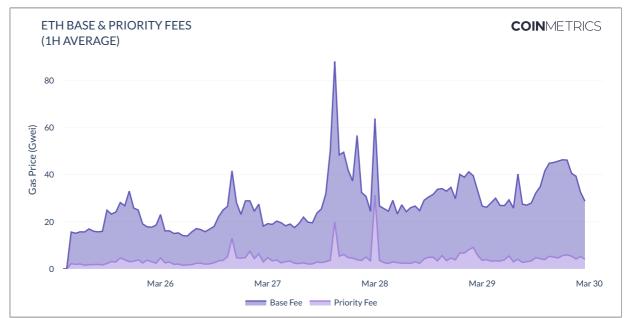








COINMETRICS



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	+8.30%	937,625	1,057,595	851,151
ETH	+12.68%	517,039	583,947	484,572
XRP	-6.39%	47,855	53,648	43,678
ADA	-11.98%	47,313	55,810	39,607
LINK	+34.03%	3,438	8,130	1,972
CRO	-12.91%	404	488	376
LTC	-5.80%	231,311	253,008	209,549
UNI	+9.57%	981	1,356	844
ВСН	+13.99%	36,627	52,056	24,900
FTT	+0.97%	94	121	64

FREE FLOAT SUPPLY

Sum of native units readily available to trade in open markets

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.00%	13,817,283	13,818,835	13,816,214
ETH	-0.03%	109,340,080	109,354,060	109,320,768
XRP	+0.04%	45,325,744,038	45,341,799,373	45,320,096,496
ADA	-0.01%	29,994,229,870	29,998,669,507	29,990,656,532
LINK	-0.01%	509,327,420	509,337,761	509,295,055
CRO	-0.01%	12,784,087,513	12,784,260,921	12,783,465,982
LTC	+0.00%	63,734,451	63,738,826	63,729,892
UNI	+0.13%	230,517,167	230,562,087	230,258,310
всн	+0.03%	13,024,738	13,026,601	13,022,535
FTT	+0.00%	316,767,541	316,767,541	316,767,541

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

TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+12.47%	297,508	328,588	266,890
ETH	+8.14%	1,091,461	1,165,012	1,011,463
XRP	+0.06%	1,454,336	1,564,970	1,317,761
ADA	-28.90%	53,103	69,251	46,560
LINK	-4.73%	4,285	8,825	2,653
CRO	-13.68%	463	563	418
LTC	-6.98%	96,949	103,293	89,931
UNI	-5.04%	1,208	1,505	998
ВСН	+13.97%	10,724	11,628	9,669
FTT	+41.32%	138	179	108

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-14.90%	3,947,272,710	5,216,992,520	2,561,095,539
ETH	-35.59%	3,072,821,669	4,642,733,121	1,560,684,189
XRP	-36.65%	872,874,741	1,410,359,828	343,151,061
ADA	+1.22%	7,972,570,674	9,485,708,590	6,880,630,589
LINK	-8.41%	52,322,985	78,662,657	21,277,069
CRO	-99.28%	15,958,669	106,600,058	596,332
LTC	-41.54%	82,419,015	144,170,829	51,448,145
UNI	-66.67%	15,905,939	23,713,287	7,755,845
ВСН	+15.22%	21,808,070	31,895,312	9,468,364
FTT	+229.54%	1,630,329	3,994,114	575,076

ADDRESSES ≥ \$1

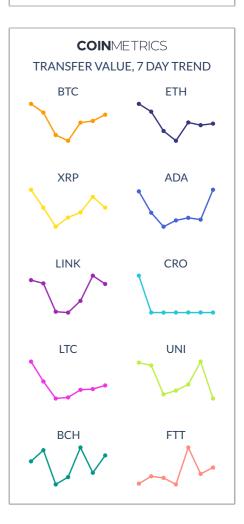
Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.39%	38,232,921	38,330,543	38,180,392
ETH	+0.15%	55,885,837	56,281,792	55,394,504
XRP	+0.26%	4,636,643	4,643,230	4,631,053
ADA	+0.56%	3,634,325	3,662,288	3,613,802
LINK	-0.66%	505,583	506,961	502,558
CRO	+0.14%	150,606	150,871	150,348
LTC	-0.30%	2,191,622	2,203,905	2,174,953
UNI	+0.03%	300,465	300,807	300,150
ВСН	-1.11%	4,019,034	4,057,610	3,989,603
FTT	-0.07%	20,399	20,457	20,340

ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.06%	72,341	72,857	71,905
ETH	-1.11%	10,767	10,988	10,565
XRP	+18.28%	1,075	1,210	1,003
ADA	+2.32%	1,016	1,058	983
LINK	-2.12%	358	378	344
CRO	+0.00%	60	60	60
LTC	-0.98%	507	512	496
UNI	-1.35%	291	296	288
всн	-3.72%	235	242	230
FTT	-6.67%	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™, 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 3/26/2023 constituent markets in the CMBI Bitcoin were Binance.US, Bitstamp, Bittrex, Coinbase, Gemini, itBit and Kraken. More information on Coin Metrics Indexes.

CMBI ETHEREUM

Daily level for CMBI Ethereum for the previous month. CMBI Ethereum tracks the price of Ethereum by sourcing ETH/USD market prices from numerous global liquidity venues. As of 3/26/2023 constituent markets in the CMBI Ethereum were Binance.US, Bitstamp, Bittrex, Coinbase, Gemini, itBit and Kraken. More information on Coin Metrics Indexes.

CMBI MULTI ASSET SERIES

The CMBI Multi Asset Series provide the cryptoasset community, investors and asset managers with publicly available and investable benchmarks that reliably and accurately track the value of cryptoasset markets. More information on Coin Metrics Indexes.

CMBI 10

Daily level for CMBI 10 for the previous month. The CMBI 10 is designed to measure the performance an investor would expect from investing in a diversified basket of cryptoassets weighted by their free float market capitalization. The 10 largest cryptoassets, defined by an asset's expected 10 year future market capitalization, are selected as the index constituents. More information on Coin Metrics Indexes.

CMBI 10 MOMENTUM

Daily level for CMBI 10 Momentum for the previous month. The CMBI 10 Momentum is designed to measure the performance of a short term momentum factor applied to a basket of the 10 largest cryptoassets. The 10 largest cryptoassets, defined by an asset's expected 10 year future market capitalization, are selected as the index constituents. More information on Coin Metrics Indexes.

DATA EXPLAINER (P.2)

TRADING DIARY

Total Volume, which is the total traded volume for the previous week for the cryptoassets under Coin Metrics Reference Rate Coverage.

Adv. Volume is the total traded volume for the previous week for all cryptoassets under Coin Metrics Reference Rate Coverage that had closing prices higher than their opening prices for the week.

Decl. Volume is the total traded volume for the previous week for all cryptoassets under Coin Metrics Reference Rate Coverage that had closing prices lower than their opening prices for the week.

Advances are the number of cryptoassets that had closing prices higher than their opening price for the week.

Declines are the number of cryptoassets that had closing prices lower than their opening price for the week.

The ratio of advances to declines can be used to determine the breadth of market direction. For example, higher advance/decline ratios indicate that advancing market direction is driven by a broader set of cryptoassets.

EXCHANGE SPOT VOLUME MARKET SHARE

Market share of exchange spot volume for the previous week for the Markets covered by Coin Metrics.

BASE ASSET SPOT VOLUME MARKET SHARE

Market share of base asset volume for the previous week for the top 25 cryptoassets based on volume under Coin Metrics Reference Rate Coverage.

LIQUIDATIONS

Exchanges which offer futures products have a liquidation system that will attempt to close a market participant's position before the point at which the market participant begins to owe more than the available amount of collateral in their account. If a short trade enters liquidation, the exchange will enter a 'buy' order to forcibly close out the position. Vice versa, if a long trade enters liquidation, the exchange will enter a 'sell' order to forcibly close out the position.

% PRICE CHANGE

Percentage change in price over the previous week for cryptoasset gainers and losers in Coin Metrics' Reference Rate and Market Cap coverage universe. Coin Metrics' price/Reference Rate is calculated using an independent methodology robust to manipulation. More information on Coin Metrics' Reference Rates.

REPORTED EXCHANGE VOLUME

Our exchange reported volume metric is an aggregation of the daily reported volume from an exchange in units of U.S. dollars.

SPOT VOLUME SHARE, % BY ASSET

Exchange spot volume asset share is derived using Coin Metrics market candles. Candles include volume and volume-weighted average price, as well as open, high, low, and close values for each market. Candles are available at various intervals, from 1-minute to 1-day frequency. Candle USD volume is calculated by aggregating the total volume of trades for each base pair in a given window and multiplying by the asset's Coin Metrics Reference Rate.

ORDER BOOK DEPTH

Order book depth (+/-2%) is calculated using Coin Metrics order book snapshots. Coin Metrics stores three types of order book snapshots. One type consists of a snapshot of the top 100 bids and top 100 asks taken once every 10 seconds for major markets. The 2nd type includes all levels where the price is within 10 percent of the midprice taken once every 10 seconds for major markets. The 3rd type consists of a full order book snapshot (every bid and every ask) taken once every hour for all markets that we are collecting order book data for.

DEX REPORTED SPOT VOLUME

Decentralized exchange spot volume is calculated by aggregating the total amount of USD trading volume occurring in major DEX liquidity pools. The subset of liquidity pools where both the base and the quote asset have a Coin Metrics Reference Rate are included.

DEX RISING VOLUME

Decentralized exchange rising volume is calculated by aggregating the total amount of USD trading volume occurring in major DEX liquidity pools and selecting the pools with the largest week-over-week rise in volume. The subset of liquidity pools where both the base and the quote asset have a Coin Metrics Reference Rate are included.

DEX FALLING VOLUME

Decentralized exchange falling volume is calculated by aggregating the total amount of USD trading volume occurring in major DEX liquidity pools and selecting the pools with the largest week-over-week decline in volume. The subset of liquidity pools where both the base and the quote asset have a Coin Metrics Reference Rate are included.

DATA EXPLAINER (P.3)

DEX VOLUME BY FEE TIER

Decentralized exchange volume by fee tier is calculated by aggregating the total amount of swap USD volume that occurred in each liquidity pool, segmented by the different fee tiers of pools available for each pair. Revenue by fee tier is calculated by multiplying the amount of USD volume by the fee tier of the liquidity pool in which the volume occurred. More information on Coin Metrics DeFi data.

DEX TOTAL VALUE LOCKED (TVL)

Decentralized exchange total value locked is derived by calculating the amount of tokens held in all DEX liqudity pools covered by Coin Metrics. Balance held by each liquidity pool smart contract is retrieved using ATLAS, Coin Metrics' universal blockchain search engine. More information on Coin Metrics ATLAS.

FUTURES OPEN INTEREST

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

FUTURES BASIS

The futures basis is the percent difference between the price of a dated futures contract and the price of its underlying spot market, calculated using the Coin Metrics Reference Rate. In addition to calculating futures basis manually, Coin Metrics also offers annualized <u>futures basis metrics</u> at the exchange-asset level.

FUTURES VOLUME

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

FUNDING RATES

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

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

PERP & NON-PERP OPEN INTEREST

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

A perpetual ("perp") contract is a special type of futures contract, which is an agreement to buy or sell a cryptoassets at a predetermined price at a specified time in the future. Perpetuals do not have a an expiry date, so one can hold the position for as long as desired.

OPTIONS OPEN INTEREST

The reported options open interest from markets in Coin Metrics' coverage in units of U.S. dollars. Currently, the open interest displayed is collected from Deribit, the largest crypto options exchange. Open interest is broken down into calls (long positions) and puts (short positions) to highlight prevailing investor sentiment.

OPTIONS IMPLIED VOLATILITY VS. STRIKE PRICE (VOLATILITY SMILE)

Implied volatility represents the market's expectation of future volatility as derived from options prices, calculated using an options pricing model. When this value is input to an options pricing model, that makes the actual options price equal to its theoretical price.

The options implied volatility (IV) vs. strike price visualization (also known as a "volatility smile") is generated by plotting the IV of each options contract with a common expiration date against the corresponding strike prices of each contract. This representation underscores the fact that out-of-the-money (OTM) options must factor in a higher likelihood of extreme, market-moving events when compared to in-the-money (ITM) options, warranting a higher premium to be paid for the IV component of that contract.

OPTIONS GREEKS

Option greeks represent the sensitivity of the price of an options contract with respect to changes in its underlying parameters. Greeks are used in risk management & hedging so that market participants can achieve their desired exposure. Exchanges report the following greeks:

- Vega: The 1st derivative of an option's price to the volatility of the underlying asset's price.
- Theta: The 1st derivative of an option's price to the passage of time.
- Rho: The 1st derivative of an option's price to the risk free interest rate.
- Delta: The 1st derivative of an option's price to the underlying asset's price.
- Gamma: The 2nd derivative of an option's price to the underlying asset's price.

DATA EXPLAINER (P.4)

MARKET CAPITALIZATION (MARKET CAP)

Market Capitalization (Market Cap) is an asset's on-chain supply (Coin Metrics' Current Supply) multiplied by its price. Current supply is the sum of all native units ever created (i.e., issued) and visible on the ledger.

Market cap is the most commonly used measure of a cryptoasset's total market value. However, market cap can be misleading because it treats each unit of supply equally. Unlike with traditional equities, significant amounts of cryptoassets are permanently lost or go unclaimed, yet are still counted as part of the on-chain supply.

FREE FLOAT MARKET CAP

The sum USD value of the free float supply. Also referred to as free float network value or free float market capitalization.

Free Float Market Capitalization is a measure of the market value of an asset's supply that is issued and available to market participants. This excludes supply that is held by company insiders, controlling investors, and long term strategic holders. Free Float Supply also excludes large token burn wallets and funds that have been provably lost.

REALIZED CAP

Realized cap is calculated by valuing each unit of supply at the price it last moved on-chain (i.e. the last time it was transacted). For example if a coin was last transacted three years ago when the price was \$2,500, that particular coin would be priced at \$2,500 instead of the current market price. The realized cap is the total sum of all coins priced this way.

Realized cap provides a more realistic representation of market cap and discounts coins that are lost or out of circulation.

MARKET TO REALIZED VALUE (MVRV)

MVRV is the ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

It can be used to help gauge cryptoasset market tops and bottoms. Historically, periods where Bitcoin's MVRV has dropped below 1.0 have coincided with market bottoms and in hindsight have been the best times to buy.

TOTAL STABLECOIN SUPPLY

Total Stablecoin Supply based on Coin Metrics' Current Supply, which reflects all native units ever created and visible on the ledger (i.e., issued). Tether supply includes Tether Omni, Tether ETH, and Tether Tron. Other Stablecoins include PAX, DAI, USDC, BUSD, GUSD, HUSD, TUSD, and SAI.

TETHER PREMIUM/DISCOUNT TO USD

30-day moving average of Tether's price YTD premium or discount to USD. Price represents Coin Metrics' Reference Rate, which is calculated using an independent methodology robust to manipulation. More information on Coin Metrics' Reference Rates.

MARKET CAPITALIZATION

See prior explanation.

TRANSFER VALUE, ADJUSTED

Transfer value is the total amount of a cryptoasset transferred over the course of a day, denominated in USD. We adjust raw transfer value to remove noisy "non-economic" behavior such as self-sends and spam.

TRANSACTION COUNT

Transaction count is the measure of the number of transactions either sent or received on a daily basis. Similar to active addresses it is a measure of network activity but it is susceptible to some spam and other types of manipulation.

MEDIAN TRANSFER VALUE

The median USD value transferred per transfer (i.e., the median "size" in USD of a transfer) between distinct addresses.

VELOCITY

The ratio of the value transferred (i.e., the aggregate "size" of all transfers) in the trailing 1 year divided by active supply in the trailing 1 year.

Velocity can be thought of as the rate of turnover— the number of times that an average native unit among the active supply has been transferred in the past 1 year.

DATA EXPLAINER (P.5)

MEMPOOL SIZE VS. FEE RATES

Coin Metrics' Mempool Monitor provides a full breakdown of what other network participants are willing to pay to have their transactions settled, thereby enabling precise fee estimation and settlement prediction. The chart showcases all feerate levels that have corresponding transactions in the mempool. For each feerate level, the total number of mempool transactions, as well as their size (in virtual bytes), are monitored.

BTC RECOMMENDED FEE RATE

The recommended minimum feerate required for a transaction to be included in the upcoming blockchain block. This metrics 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 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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