# STATE OF THE MARKET

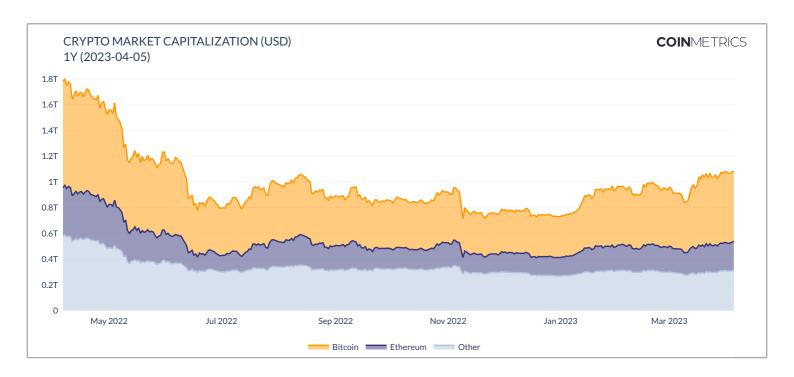
MAR. 30 - APR. 5, 2023

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



#### **MARKET SUMMARY**

With the second quarter of 2023 underway, digital asset market participants are hoping for a repeat of the first. Despite foggy macroeconomic and regulatory conditions, bitcoin and the bulk of digital assets shined against other financial asset classes. With BTC securing its best quarterly gain at 72% since the halcyon bull-market days of 2021, at least one protagonist of the last cycle is making news again. On Wednesday, Microstrategy (MSTR)—the U.S. technology company founded by steadfast Bitcoin proponent Michael Saylor—announced it had acquired an additional 1,045 BTC, bringing the company's total holdings to 140,000 BTC acquired at an average price of \$29,803. Meanwhile, the Ethereum maximal extractable value (MEV) ecosystem was shaken on Monday when a malicious validator successfully targeted multiple trading bots, snatching \$20M. The attack was made possible due to a vulnerability in the open source mev-boost relay implementation developed by the MEV research group Flashbots, who quickly pushed a fix to stop further issues. The incident comes with less than one week left until Ethereum's "Shanghai" hard fork on April 12th, the network's first big upgrade since The Merge back in September of last year. After 3 weeks in limbo following a \$200M exploit, the Euler DeFi protocol reported this week that it successfully recovered all stolen assets in one of the largest recoveries in blockchain history. In another DAO drama, the layer 2 (L2) Arbitrum's newly founded ArbitrumDAO faced internal governance debate over the Arbitrum Foundation's movements of the recently airdropped \$ARB token. The Foundation clarified the movement of 10M \$ARB tokens which were sold to fiat to cover "operational costs" and 40M \$ARB tokens loaned to a market maker. The Foundation posted a transparency report and other documentation to the ArbitrumDAO governance forums to "address key areas of concern."

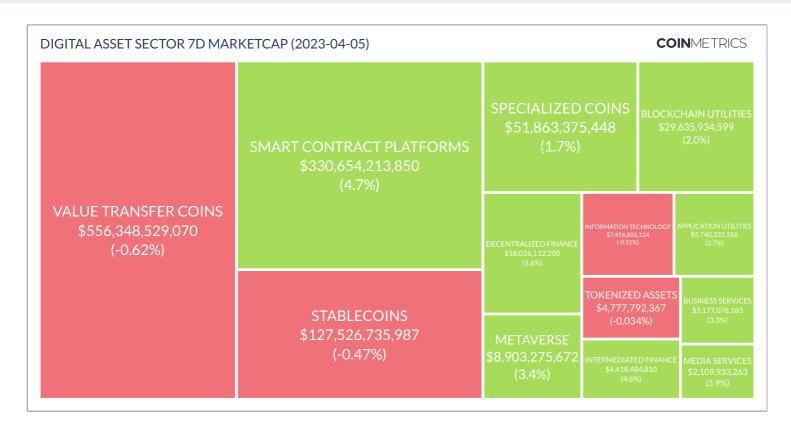


#### PRICE (CMBI CONSTITUENTS)

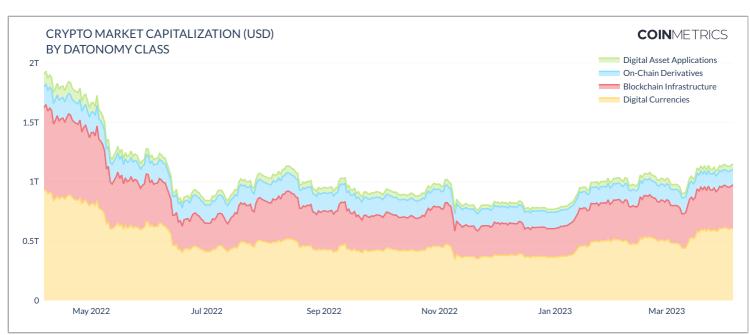
Coin Metrics' Reference Rate price calculated using a transparent, independent methodology robust to manipulation and derived from high quality constituent markets. Data based on 4pm EST NYC close.

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
ASSET	CLOSINGTRICE	7D CHANGE	70 MAX	75 Mill	3244 CHANGE	32 <b>44</b> 14177	3244 141114
ВТС	\$28,229.42	+0.84%	\$28,433.22	\$27,995.05	-35.11%	\$43,501.99	\$15,799.60
ETH	\$1,910.44	+7.24%	\$1,910.44	\$1,781.40	-40.76%	\$3,294.20	\$923.00
SOL	\$20.90	+2.16%	\$20.93	\$20.41	-82.26%	\$117.81	\$8.35
DOT	\$6.39	+5.21%	\$6.51	\$6.08	-68.65%	\$20.39	\$4.27
ADA	\$0.39	+4.42%	\$0.40	\$0.38	-63.76%	\$1.09	\$0.24
DOGE	\$0.09	+25.38%	\$0.10	\$0.07	-35.57%	\$0.16	\$0.05
MATIC	\$1.14	+4.40%	\$1.14	\$1.09	-23.95%	\$1.52	\$0.34
BNB	\$313.54	-0.81%	\$317.03	\$311.23	-28.12%	\$436.17	\$189.63
AVAX	\$17.90	+4.14%	\$17.90	\$17.19	-79.52%	\$87.42	\$10.78
ATOM	\$11.41	+2.01%	\$11.41	\$11.05	-58.64%	\$27.87	\$5.73
CMBI10	\$3,112.46	+3.09%	\$3,112.46	\$3,019.08	-43.63%	\$5,521.56	\$1,838.40

# **ASSET CLASSES**





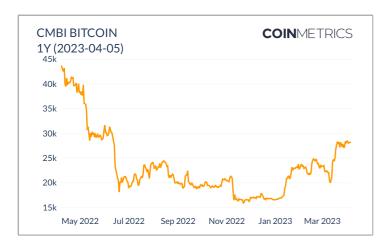


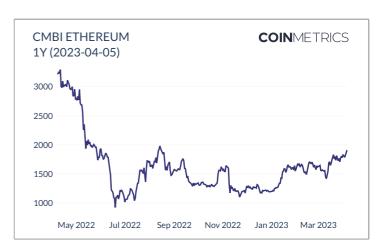
# **INDEX ROUNDUP**

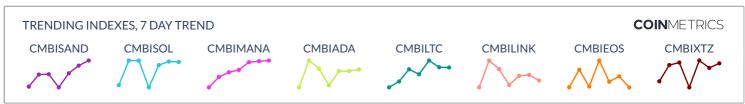
#### SINGLE ASSET INDEXES

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	\$28,229.42	+0.84%	\$28,433.22	\$27,995.05	-35.11%	\$43,501.99	\$15,799.60
СМВІВТСТ	\$30,329.36	+0.84%	\$30,548.32	\$30,077.55	-35.11%	\$46,738.03	\$16,974.91
СМВІЕТН	\$1,910.44	+7.24%	\$1,910.44	\$1,781.40	-40.76%	\$3,294.20	\$923.00
СМВІЕТНТ	\$2,073.96	+7.24%	\$2,073.96	\$1,933.88	-40.76%	\$3,576.15	\$1,002.00



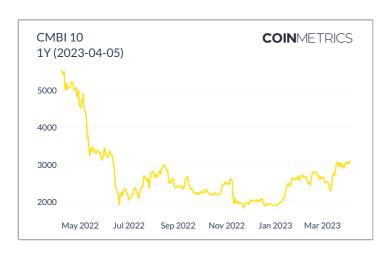




#### **MULTI ASSET INDEXES**

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

INDEX	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
CMBI10	\$3,112.46	+3.09%	\$3,112.46	\$3,019.08	-43.63%	\$5,521.56	\$1,838.40
CMBI10E	\$5,385.84	+5.45%	\$5,385.84	\$5,107.33	-61.54%	\$14,005.18	\$3,409.70
CMBI10EX	\$7,209.72	+6.30%	\$7,209.72	\$6,782.60	-52.43%	\$15,218.88	\$4,169.19
СМВІ10М	\$10,766.43	+5.10%	\$10,910.08	\$10,244.07	-38.03%	\$17,373.58	\$9,310.27
CMBIBE	\$14,818.45	+2.99%	\$14,818.45	\$14,387.88	-37.19%	\$23,684.00	\$8,387.96





# MARKET MOVEMENT

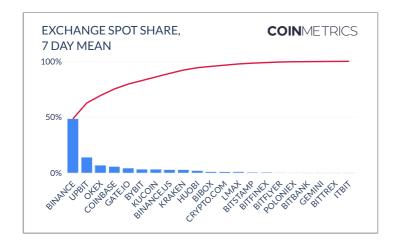
# **TRADING DIARY, 7 DAY**

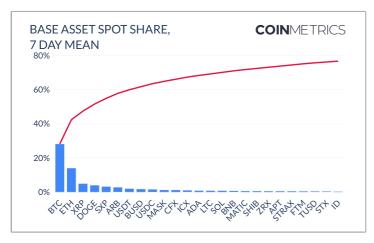
**ADVANCING VOLUME** \$148,180,209,510.13

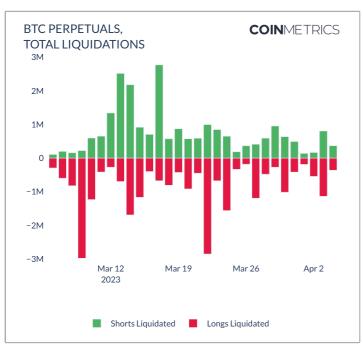
**DECLINING VOLUME** \$10,476,726,442.87

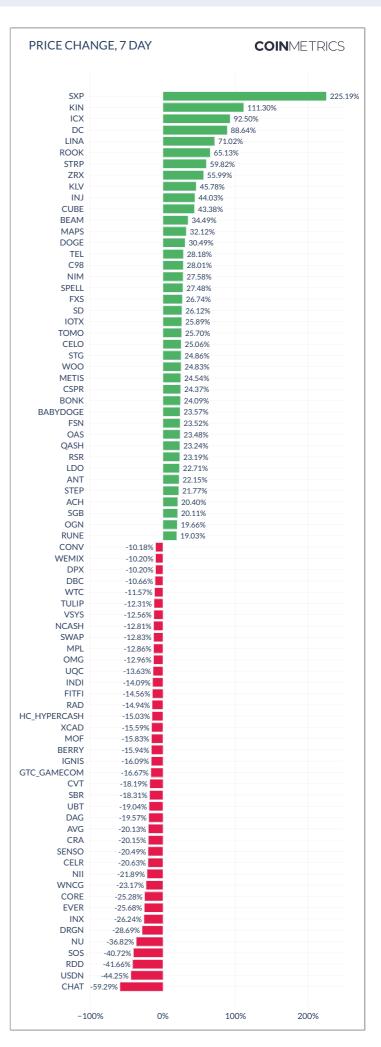
ADVANCES 465

DECLINES 174

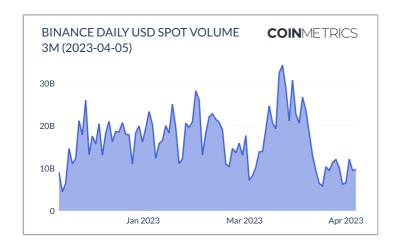


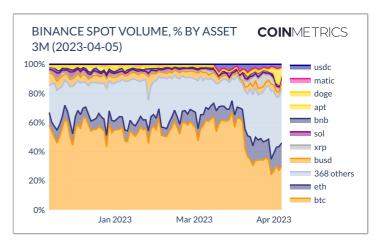




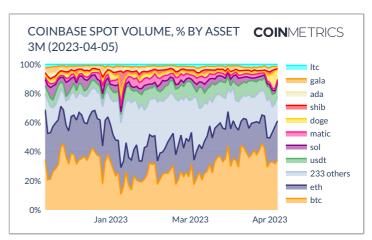


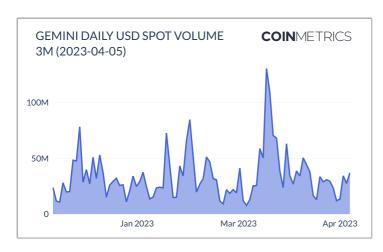
# **EXCHANGE SPOT VOLUME**

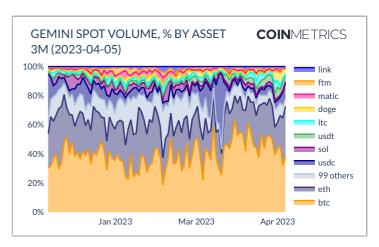


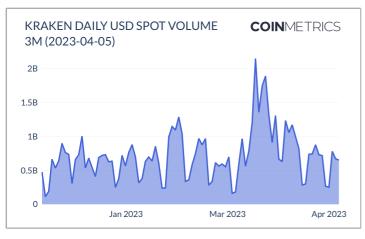


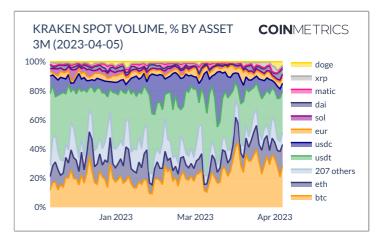




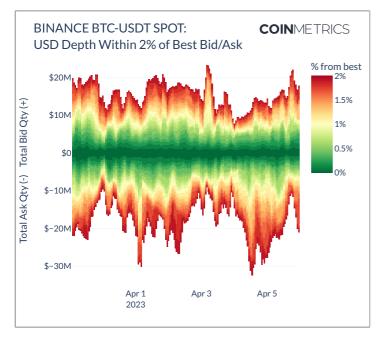


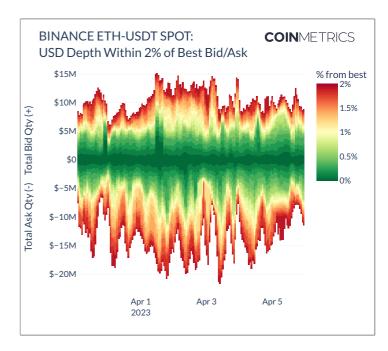


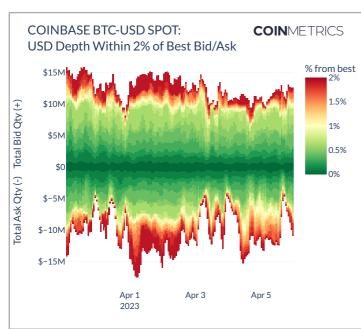


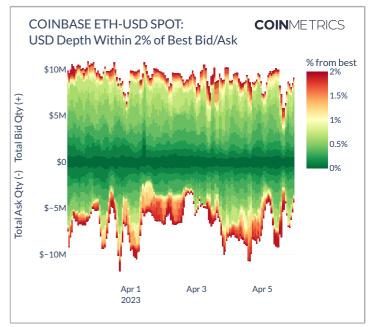


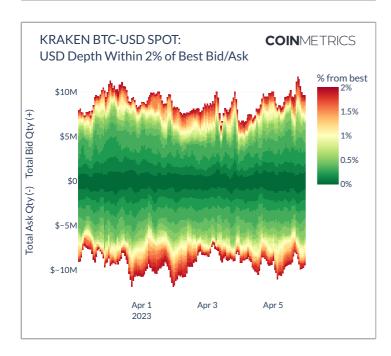
# ORDER BOOK DEPTH

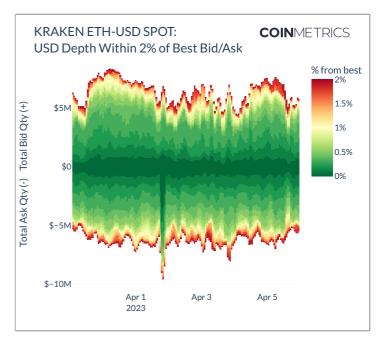






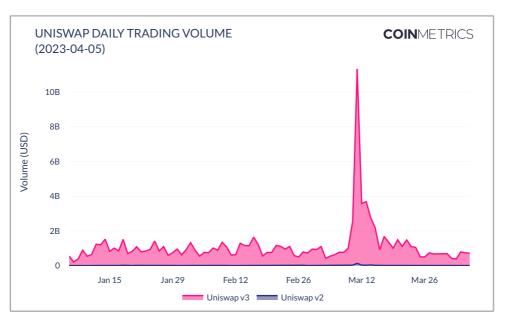




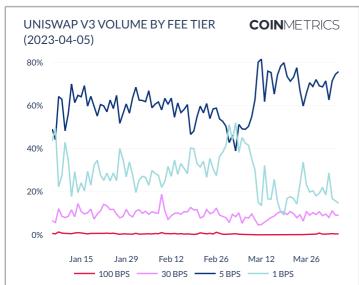


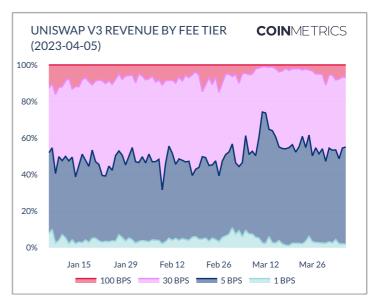
# **DEX DIGEST**

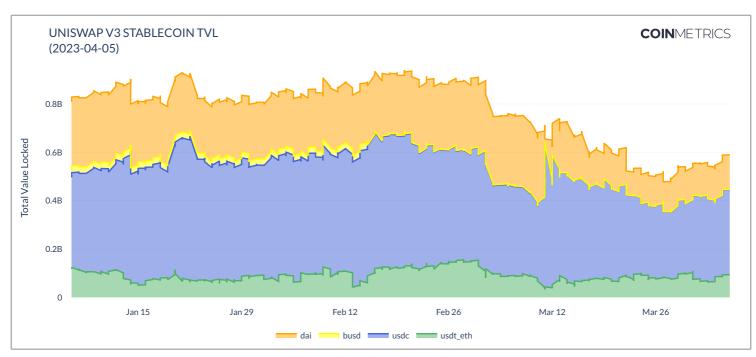








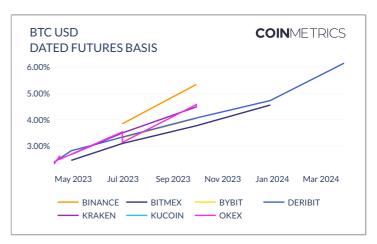




Note: DEX metrics currently capture a subset of the top liquidity pools on the Ethereum-based instantiation of each protocol.

# **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	-7.16%	12,114,638,852	12,682,571,968	11,533,453,237
ETH	+14.27%	5,940,575,089	6,694,821,096	5,591,120,719
XRP	-45.20%	941,338,499	1,117,135,152	589,814,601
ADA	+1.95%	212,364,617	233,217,814	196,350,534
LINK	+0.29%	115,578,224	126,344,360	106,794,792
CRO	-1.35%	20,403,896	22,664,603	19,090,841
LTC	+4.12%	427,245,325	451,508,877	404,405,048
UNI	+7.91%	43,952,565	46,670,407	42,694,466
всн	-4.46%	165,176,786	168,210,115	159,717,823

#### **FUTURES VOLUME**

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-29.34%	33,514,050,994	50,527,485,721	15,810,941,126
ETH	+13.24%	17,256,383,000	22,292,161,200	7,766,442,211
XRP	-64.33%	2,712,228,698	5,060,270,746	1,403,169,876
ADA	-30.11%	572,041,517	936,962,126	360,834,071
LINK	-16.17%	362,143,030	501,155,853	226,071,048
CRO	-12.49%	4,166,784	7,992,908	983,937
LTC	-21.40%	1,003,337,893	1,379,066,401	703,558,179
UNI	+1.83%	84,552,910	103,154,029	64,229,423
всн	-18.54%	121,828,325	269,259,404	76,494,583





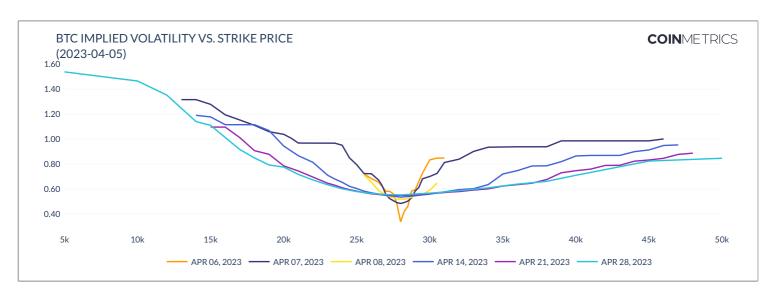


# **OPTIONS SNAPSHOT**

#### **BTC OPEN INTEREST**

#### **ETH OPEN INTEREST**

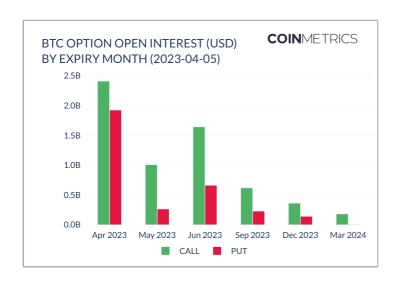
TOTAL	\$9,151,707,325	TOTAL	\$4,727,597,777
CALLS	\$6,089,958,177	CALLS	\$3,214,201,614
PUTS	\$3,061,749,149	PUTS	\$1,513,396,163

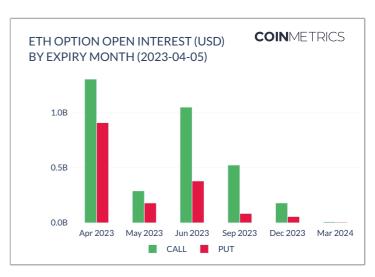


#### AT THE MONEY OPTIONS

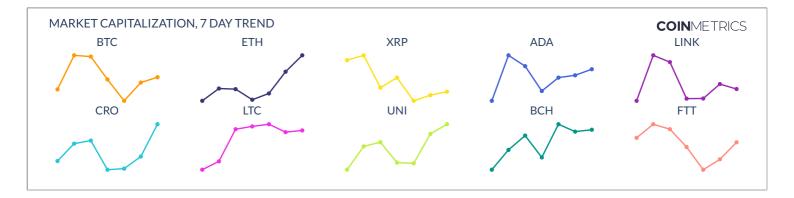
 $Market\ greeks, implied\ volatility, and\ mark\ contract\ prices\ for\ BTC\ options\ at\ or\ near\ strike\ price.$ 

			CALLS								PUTS	5		
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
6.3565	-87.43585	1.12415	0.7663	0.00027	0.5739	0.0333	BTC-6APR23-27250	0.0002	0.5739	0.00027	-0.2337	-0.36744	-87.43585	6.3565
7.283	-99.36072	1.02246	0.69355	0.00031	0.5661	0.0248	BTC-6APR23-27500	0.0006	0.5661	0.00031	-0.30645	-0.48282	-99.36072	7.283
7.95172	-107.68706	0.90548	0.61154	0.00034	0.4474	0.0162	BTC-6APR23-27750	0.0008	0.4474	0.00034	-0.38846	-0.61349	-107.68706	7.95172
8.26286	-112.05598	0.77807	0.52364	0.00035	0.4213	0.009	BTC-6APR23-28000	0.0025	0.4214	0.00035	-0.47636	-0.75458	-112.05598	8.26286
3.63193	-54.19425	1.21713	0.89704	0.00016	0.5212	0.0356	BTC-7APR23-27250	0.0022	0.5212	0.00016	-0.10295	-0.15053	-54.2	3.63154
20.10236	-28.41093	3.67724	0.27178	0.00009	0.5025	0.028	BTC-7APR23-27500	0.0035	0.5025	0.00009	-0.72822	-12.71289	-28.41093	20.10236
5.65989	-79.38886	1.10082	0.80071	0.00027	0.489	0.0211	BTC-7APR23-27750	0.0055	0.489	0.00027	-0.19929	-0.29196	-79.38886	5.65989
16.42436	-20.53175	2.62649	0.1901	0.00008	0.4811	0.0153	BTC-7APR23-28000	0.0085	0.4811	0.00008	-0.8099	-14.24915	-20.53175	16.42436
26.93385	-33.66838	8.26562	0.5524	0.00011	0.54	0.0464	BTC-14APR23-27500	0.021	0.54	0.00011	-0.44756	-8.30862	-33.66839	26.93386
27.16865	-33.96188	7.52056	0.49933	0.00011	0.5415	0.0365	BTC-14APR23-28000	0.0288	0.5415	0.00011	-0.50065	-9.35525	-33.96214	27.16885





# **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	+0.63%	545,112,765,927	551,289,644,887	538,531,058,881
ETH	+6.64%	218,596,246,397	228,029,800,056	213,822,488,439
XRP	-5.32%	51,548,904,952	53,889,528,985	49,776,865,643
ADA	+4.23%	13,229,791,199	13,593,324,851	12,812,426,977
LINK	+1.34%	7,369,201,771	7,605,067,645	7,231,828,143
CRO	+3.02%	6,868,747,685	7,024,255,321	6,770,155,573
LTC	+4.17%	6,668,241,300	6,770,133,876	6,458,032,592
UNI	+5.80%	6,046,075,990	6,231,387,593	5,889,873,514
ВСН	+5.14%	2,424,528,187	2,479,892,203	2,342,885,857
FTT	-0.52%	429,245,756	439,517,886	416,167,331

#### **REALIZED CAP**

USD value for all native units based on the USD closing price on the day that a unit last moved.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.31%	382,049,981,589	382,568,849,464	381,382,221,374
ETH	+1.34%	162,217,907,513	163,597,891,315	161,431,665,483
XRP	-0.04%	49,606,138,958	49,664,810,930	49,549,105,124
ADA	+0.54%	17,723,217,725	17,787,962,528	17,678,071,949
LINK	-0.03%	8,366,645,289	8,379,285,838	8,355,141,597
CRO	+0.01%	22,635,799,339	22,636,940,958	22,634,415,546
LTC	+0.46%	6,841,883,666	6,852,756,866	6,821,538,169
UNI	+0.09%	9,647,559,311	9,652,175,978	9,640,634,755
ВСН	-0.26%	4,512,955,035	4,517,319,434	4,505,784,597
FTT	-0.03%	916,313,864	916,887,214	915,677,765

#### FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.61%	389,562,781,764	393,985,613,778	384,880,944,103
ETH	+6.62%	200,227,985,940	208,842,726,994	195,874,766,964
XRP	-5.30%	23,380,337,240	24,444,367,480	22,577,193,894
ADA	+4.15%	11,653,996,190	11,973,795,575	11,292,880,330
LINK	+1.34%	3,753,294,250	3,873,232,037	3,683,139,798
CRO	+3.00%	877,906,499	897,744,732	865,281,768
LTC	+4.14%	5,853,241,985	5,942,236,512	5,669,644,123
UNI	+6.15%	1,396,341,292	1,441,558,839	1,357,988,599
ВСН	+5.09%	1,631,668,085	1,668,932,954	1,576,999,277
FTT	-0.52%	413,417,898	423,311,257	400,821,722

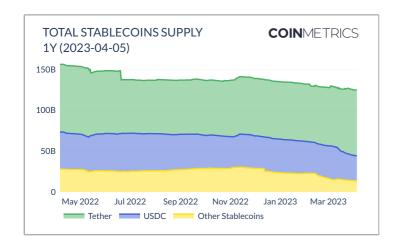
#### MARKET VALUE TO REALIZED VALUE

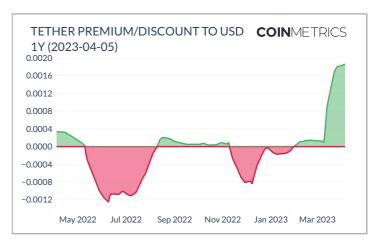
The ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.32%	1.43	1.44	1.41
ETH	+5.23%	1.35	1.39	1.32
XRP	-5.28%	1.04	1.09	1.00
ADA	+3.67%	0.75	0.77	0.72
LINK	+1.36%	0.88	0.91	0.87
CRO	+3.01%	0.30	0.31	0.30
LTC	+3.70%	0.97	0.99	0.95
UNI	+5.70%	0.63	0.65	0.61
всн	+5.41%	0.54	0.55	0.52
FTT	-0.49%	0.47	0.48	0.45



# STABLECOINS REPORT





#### MARKET CAPITALIZATION

USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.00%	35,292,440,800	35,297,889,023	35,286,310,046
USDT	+0.00%	888,214,823	888,351,940	888,060,529
USDT_TRX	+0.00%	44,143,697,856	44,150,512,479	44,136,029,523
PAX	-0.07%	753,903,804	755,317,679	751,887,661
DAI	-0.25%	5,094,308,588	5,108,389,030	5,082,889,511
USDC	-0.78%	30,887,880,527	31,126,637,978	30,784,565,155
BUSD	-5.99%	7,449,227,525	7,613,037,861	7,156,738,800
GUSD	-0.79%	390,937,333	392,370,190	388,379,418

#### TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-13.73%	3,321,936,453	4,365,163,815	1,478,768,878
USDT	+0.94%	232,598	511,994	35,869
USDT_TRX	-5.52%	8,204,906,903	9,616,357,870	4,797,432,323
PAX	+116.69%	33,453,891	86,906,252	9,411,528
DAI	-28.69%	813,622,037	1,317,989,722	106,090,536
USDC	-19.82%	4,826,342,550	6,839,449,131	2,648,881,811
BUSD	-34.98%	169,592,517	314,457,294	24,668,247
GUSD	-57.73%	1,456,080	2,826,476	764,898





#### TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-4.33%	115,410	138,924	86,945
USDT	-76.67%	19	30	7
USDT_TRX	+2.11%	1,960,720	2,167,498	1,724,266
PAX	-39.74%	155	234	110
DAI	-12.12%	4,731	5,489	3,983
USDC	-4.29%	45,074	51,759	36,563
BUSD	-13.46%	1,154	1,535	907
GUSD	+32.50%	94	121	66

#### **MEDIAN TRANSFER VALUE**

Median USD value transferred per transfer between addresses

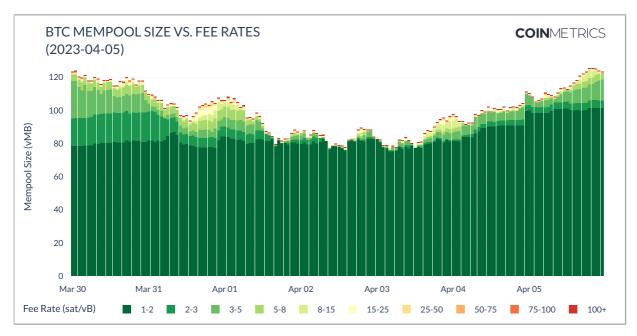
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+19.30%	713	915	500
USDT	+140.71%	807	1,683	155
USDT_TRX	+3.66%	128	140	117
PAX	+117.68%	33,468	153,419	997
DAI	+59.41%	977	1,500	601
USDC	+40.36%	1,116	1,433	898
BUSD	-14.93%	605	983	297
GUSD	+414.06%	2,089	3,098	500

#### **VELOCITY**

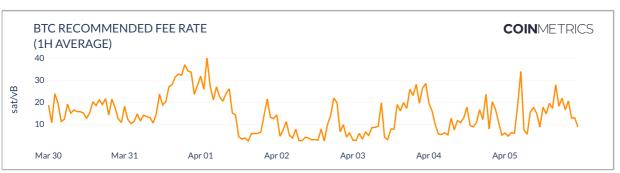
Number of times that an average native unit among the active supply has been transferred in the past 1 year

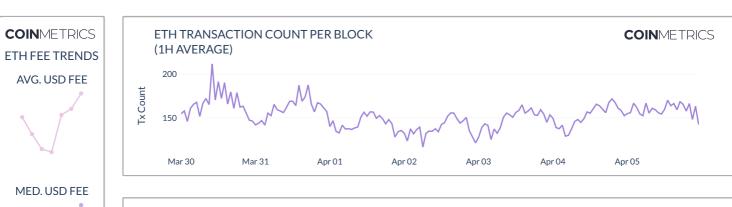
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.28%	41.29	41.38	41.14
USDT	-0.52%	3.13	3.14	3.12
USDT_TRX	+0.47%	61.15	61.34	61.05
PAX	-0.05%	18.32	18.39	18.24
DAI	+0.31%	253.19	253.98	252.05
USDC	+1.11%	117.15	117.52	116.06
BUSD	+6.65%	39.51	41.20	38.63
GUSD	-1.49%	19.15	19.40	19.06

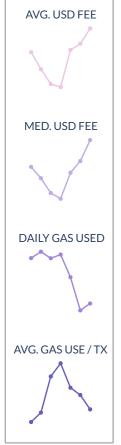
# **FEE MARKET**

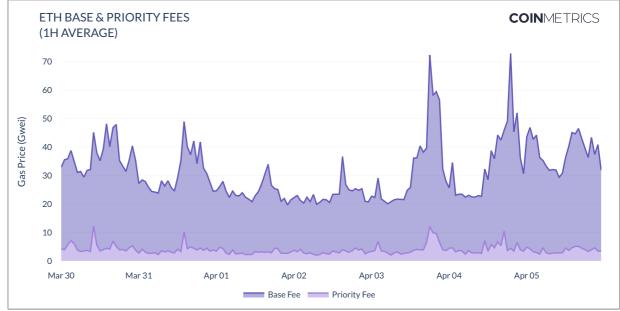












# **NETWORK DATA FUNDAMENTALS**



#### **ACTIVE ADDRESSES**

Count of unique addresses that were active in the network

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-5.59%	1,024,922	1,108,155	964,688
ETH	-7.31%	520,477	558,560	499,716
XRP	-5.49%	44,754	83,787	32,990
ADA	+28.42%	51,982	69,724	40,530
LINK	-39.27%	2,601	3,624	1,834
CRO	-6.28%	515	915	365
LTC	-4.50%	226,637	246,490	206,415
UNI	-14.17%	823	1,090	702
всн	+6.83%	36,937	53,214	30,472
FTT	-27.96%	84	98	67

#### 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%	13,817,924	13,819,296	13,816,939
ETH	-0.04%	109,299,477	109,317,523	109,277,350
XRP	+0.02%	45,350,652,796	45,355,133,112	45,341,425,788
ADA	-0.04%	29,982,635,202	29,993,852,505	29,978,412,627
LINK	+0.01%	509,321,932	509,345,675	509,295,814
CRO	-0.02%	12,781,175,725	12,783,457,703	12,780,639,247
LTC	+0.03%	63,744,178	63,751,752	63,735,489
UNI	+0.34%	230,946,694	231,338,336	230,563,287
ВСН	-0.01%	13,024,828	13,025,592	13,023,668
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	+4.13%	342,901	419,443	308,895
ETH	-5.41%	1,083,533	1,187,924	981,226
XRP	+0.30%	1,314,809	1,462,793	1,189,160
ADA	+11.47%	54,076	68,587	44,371
LINK	-29.15%	3,068	4,165	2,298
CRO	-3.12%	607	1,013	415
LTC	+2.30%	96,404	100,879	90,100
UNI	-11.90%	894	1,156	743
ВСН	-89.40%	25,577	108,541	10,863
FTT	-8.73%	109	126	97

# TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-1.20%	4,197,358,774	5,913,834,465	1,964,174,176
ETH	+66.39%	3,122,264,632	4,564,182,185	1,463,344,091
XRP	-20.22%	636,685,106	807,204,986	292,263,797
ADA	+16.58%	9,125,459,930	10,725,216,983	7,091,411,770
LINK	+14.59%	37,167,251	57,538,978	19,512,104
CRO	+51.77%	1,581,210	4,472,323	751,294
LTC	-3.02%	71,364,632	83,933,823	51,047,736
UNI	+126.49%	8,904,795	15,218,797	4,238,916
ВСН	+9.86%	17,078,019	24,008,376	7,981,899
FTT	-12.62%	1,323,523	1,976,322	997,632

#### ADDRESSES ≥ \$1

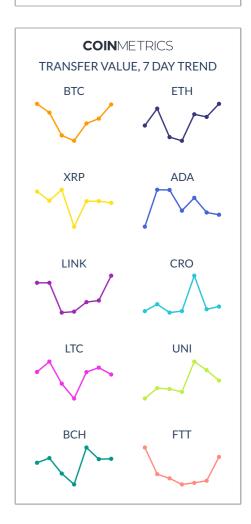
Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.28%	38,351,570	38,433,607	38,291,663
ETH	+2.17%	56,762,538	57,539,231	56,316,372
XRP	+0.26%	4,651,847	4,657,652	4,645,648
ADA	+0.69%	3,674,922	3,684,048	3,658,922
LINK	+0.32%	503,406	504,203	502,611
CRO	+0.00%	150,499	150,697	150,352
LTC	+1.14%	2,199,268	2,210,980	2,183,443
UNI	+0.37%	301,359	301,986	300,884
ВСН	+1.29%	4,031,194	4,054,565	3,996,753
FTT	+0.15%	20,459	20,502	20,413

# ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.12%	72,681	72,927	72,434
ETH	+4.61%	11,026	11,368	10,852
XRP	-2.25%	1,170	1,203	1,106
ADA	+3.55%	1,070	1,088	1,041
LINK	+0.27%	374	387	366
CRO	+1.67%	60	61	60
LTC	+2.00%	507	510	500
UNI	+1.03%	293	295	291
ВСН	+3.03%	235	239	231
FTT	+7.14%	15	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<sup>™</sup> 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<sup>™</sup>, 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
- CMBIJFE: 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 4/2/2023 constituent markets in the CMBI Bitcoin were Binance.US, Bitstamp, Bittrex, Coinbase, Gemini, itBit and Kraken. More information on Coin Metrics Indexes.

#### **CMBI ETHEREUM**

Daily level for CMBI Ethereum for the previous month. CMBI Ethereum tracks the price of Ethereum by sourcing ETH/USD market prices from numerous global liquidity venues. As of 4/2/2023 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-overweek 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-overweek decline in volume. The subset of liquidity pools where both the base and the quote asset have a Coin Metrics Reference Rate are included.

# **DATA EXPLAINER (P.3)**

#### **DEX VOLUME BY FEE TIER**

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

# **DEX TOTAL VALUE LOCKED (TVL)**

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

#### **FUTURES OPEN INTEREST**

The reported futures open interest from markets in Coin Metrics' coverage in units of U.S. dollars, aggregated across all futures markets for a particular asset. Covered markets can be found in the Coin Metrics <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 futures basis metrics at the exchange-asset level.

#### **FUTURES VOLUME**

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

#### **FUNDING RATES**

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

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

#### PERP & NON-PERP OPEN INTEREST

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

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

#### **OPTIONS OPEN INTEREST**

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

# OPTIONS IMPLIED VOLATILITY VS. STRIKE PRICE (VOLATILITY SMILE)

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

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

#### **OPTIONS GREEKS**

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

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

# **DATA EXPLAINER (P.4)**

#### MARKET CAPITALIZATION (MARKET CAP)

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

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

#### FREE FLOAT MARKET CAP

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

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

#### REALIZED CAP

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

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

# MARKET TO REALIZED VALUE (MVRV)

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

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

#### **TOTAL STABLECOIN SUPPLY**

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

#### TETHER PREMIUM/DISCOUNT TO USD

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

#### MARKET CAPITALIZATION

See prior explanation.

#### TRANSFER VALUE, ADJUSTED

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

#### TRANSACTION COUNT

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

#### MEDIAN TRANSFER VALUE

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

#### **VELOCITY**

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

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

# **DATA EXPLAINER (P.5)**

#### MEMPOOL SIZE VS. FEE RATES

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

#### BTC RECOMMENDED FEE RATE

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

#### **BTC FEE TRENDS**

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

#### TRANSACTION COUNT PER BLOCK

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

# **ETH GAS PRICES**

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

#### **ETH FEE TRENDS**

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

#### **NVT RATIO**

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

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

#### **ACTIVE ADDRESSES**

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

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

# FREE FLOAT SUPPLY

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

#### TRANSACTION COUNT

See prior explanation.

#### TRANSFER VALUE, ADJUSTED

See prior explanation.

#### ADDRESSES WITH ≥ \$1

The count of addresses that hold at least \$1 worth of a cryptoasset. This gives a rough estimation of the amount of users that hold an asset, with the same caveats that apply for active addresses.

# ADDRESSES WITH ≥ \$1M

The count of addresses that hold at least \$1M worth of a cryptoasset. This gives a rough estimation of the amount of institutional investors that hold an asset, with the same caveats that apply for active addresses.

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