STATE OF THE MARKET

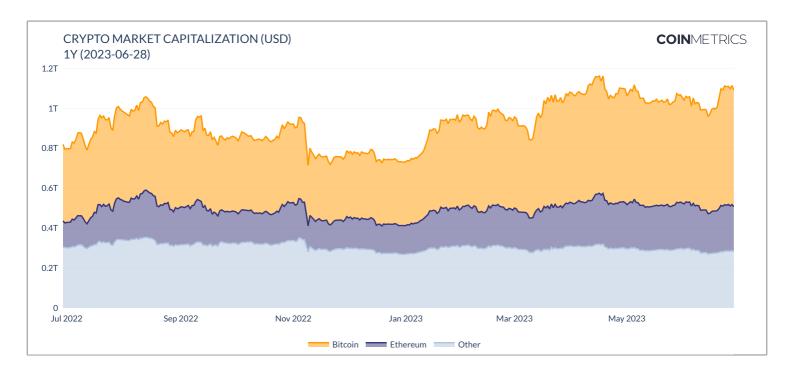
JUNE 22 - 28, 2023

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



MARKET SUMMARY

After a busy week of renewed institutional enthusiasm in the U.S. digital assets industry, the race for the first spot bitcoin ETF intensified even further with ARK Invest amending its own spot ETF application in a Form 19b-4 filed with the SEC on June 28th. ARK, together with 21Shares, reaffirmed a desire to be the first issuer to the market after its previous two applications in 2021 and 2022 were both denied by the SEC. The inclusion of a surveillance sharing agreement with a yet-to-be named U.S. crypto exchange that is "a regulated market of significant size" aligns its application with BlackRock's, filed last week. The amendment was also noteworthy as ARK is first in line to hear from the SEC on its next decision date of August 13th, 2023. In other domestic ETF news, the first leveraged crypto ETF started trading on US markets this past week. Like other ETFs launched so far in the U.S., the Volatility Shares 2x Bitcoin Strategy ETF (BITX) is a futures-based product. In another on-going cross between BTC and U.S. public markets, American business-intelligence firm MicroStrategy (NASDAQ:MSTR)—well-known already for its sizable BTC holdings—announced it purchased another 12,333 BTC for around \$350 million, bringing its total portfolio to 152,333 BTC, purchased at an average price of \$29,668 per bitcoin. Outside the U.S., the push to establish a hub for the digital assets ecosystem in the Asia-Pacific (APAC) region picked up with Hong Kong's HSBC introducing services related to crypto assets. The bank became the first to allow its local customers to buy BTC and ETH Futures ETFs listed on the Hong Kong Stock Exchange. On Wednesday, John J. Ray III—the new CEO of FTX brought on to clean up the mess left in the wake of the exchange's collapse—signaled that early talks are underway to potentially restart the international exchange under a rebranding. In another hard reminder of the industry mantra of "not your keys not your coins" Prime Trust, a crypto custodian, was taken over by regulators in Nevada after the company announced it was unable to meet client withdrawals. Filings showed the company owes \$85M in fiat and \$68M in crypto assets to clients. Three weeks after the SEC filed its complaint against U.S. exchange Coinbase, the company has filed a legal response arguing against the allegations that some of the assets offered on its platform are unregistered securities. The response noted that "half of the tokens traded on Coinbase's platform that the SEC alleges to be securities — ADA, CHZ, DASH, FIL, MATIC, and SOL – were custodied or traded on the Coinbase platform by April 2021, when the SEC declared Coinbase's registration statement effective." In DeFi-related news, a new venture led by Compound Labs creators called Superstate raised \$4M in funding to develop regulated DeFi products. This past week, the Bank for International Settlements (BIS) introduced a new initiative in the quest to build central bank digital currencies (CBDCs). Codenamed Project Mariana, the BIS Innovation Hub project brings together three central banks including the Swiss National Bank, Bank of France, and Monetary Authority of Singapore. The initial report outlined an exploratory solution using the DeFi protocol Curve Finance's liquidity pool design to manage CBDC trading and settlement. As Q2 comes to a close, digital asset participants have much to contemplate in what is shaping up to be an active second half of 2023.

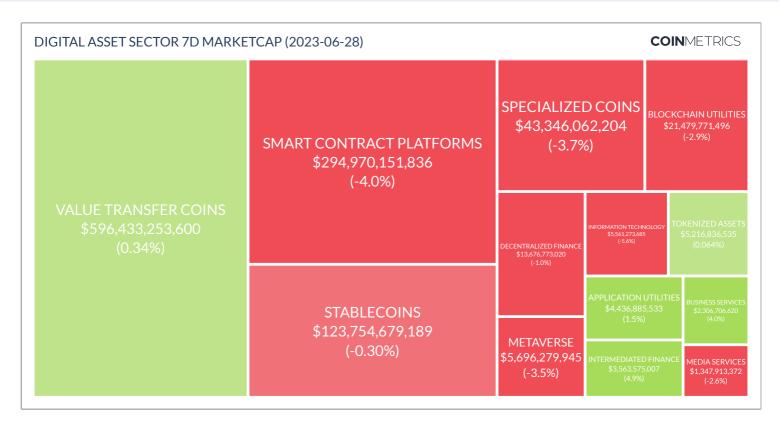


PRICE (CMBI CONSTITUENTS)

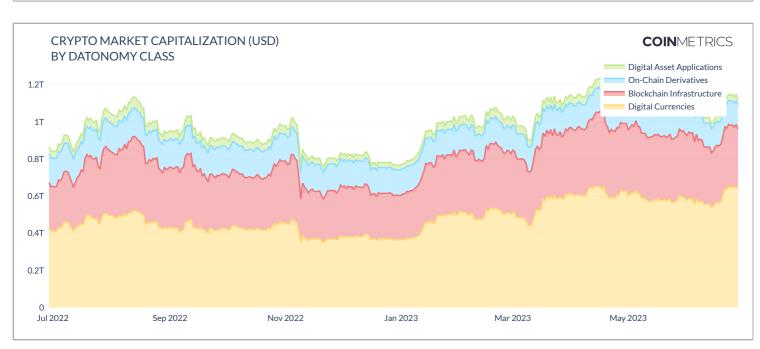
 $Coin Metrics' \, Reference \, Rate \, price \, calculated \, using \, a \, transparent, \, independent \, methodology \, robust \, to \, manipulation \, and \, derived \, from \, high \, quality \, constituent \, markets. \, Data \, based \, on \, 4pm \, EST \, NYC \, close. \, and \, close \, cl$

ASSET	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
втс	\$30,077.77	-0.22%	\$30,864.67	\$30,077.77	+59.00%	\$30,864.67	\$15,799.60
ETH	\$1,833.38	-2.86%	\$1,901.75	\$1,833.38	+80.23%	\$2,129.88	\$1,017.22
SOL	\$15.92	-5.70%	\$17.06	\$15.92	-49.99%	\$46.47	\$8.35
DOT	\$4.87	+0.31%	\$5.12	\$4.85	-28.23%	\$9.54	\$4.27
ADA	\$0.27	-8.48%	\$0.30	\$0.27	-39.79%	\$0.57	\$0.24
DOGE	\$0.06	-6.27%	\$0.07	\$0.06	-2.95%	\$0.14	\$0.06
MATIC	\$0.62	-7.68%	\$0.68	\$0.62	+38.31%	\$1.52	\$0.44
BNB	\$228.54	-6.56%	\$245.64	\$228.54	+7.82%	\$353.50	\$211.98
AVAX	\$12.31	-3.89%	\$13.42	\$12.31	-23.74%	\$29.19	\$10.78
TRX	\$0.07	+1.60%	\$0.07	\$0.07	+16.18%	\$0.08	\$0.05
CMBI10	\$3,072.57	-1.51%	\$3,176.99	\$3,072.57	+50.19%	\$3,398.54	\$1,838.40

ASSET CLASSES





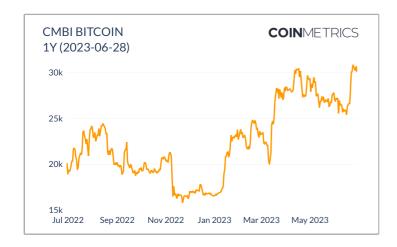


INDEX ROUNDUP

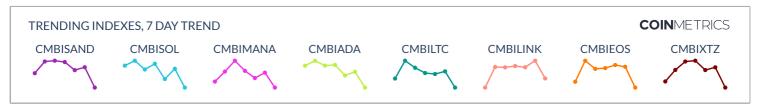
SINGLE ASSET INDEXES

The CMBI Single Asset series are institutionally designed cryptoasset benchmarks that accurately & reliably represent a real-time market aggregate USD value for singular crypto assets.

INDEX	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
СМВІВТС	\$30,077.77	-0.22%	\$30,864.67	\$30,077.77	+59.00%	\$30,864.67	\$15,799.60
СМВІВТСТ	\$32,315.20	-0.22%	\$33,160.64	\$32,315.20	+59.00%	\$33,160.64	\$16,974.91
CMBIETH	\$1,833.38	-2.86%	\$1,901.75	\$1,833.38	+80.23%	\$2,129.88	\$1,017.22
CMBIETHT	\$1,990.31	-2.86%	\$2,064.52	\$1,990.31	+80.23%	\$2,312.19	\$1,104.29







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	\$3,072.57	-1.51%	\$3,176.99	\$3,072.57	+50.19%	\$3,398.54	\$1,838.40
CMBI10E	\$4,156.55	-3.67%	\$4,408.44	\$4,156.55	-12.03%	\$6,768.61	\$3,409.70
CMBI10EX	\$6,375.75	-3.48%	\$6,671.22	\$6,375.75	+39.08%	\$7,991.44	\$4,562.49
CMBI10M	\$9,408.76	-4.12%	\$9,812.75	\$9,408.76	-34.82%	\$16,183.43	\$9,310.27
CMBIBE	\$15,231.01	-1.11%	\$15,685.61	\$15,231.01	+64.83%	\$16,180.78	\$8,387.96





MARKET MOVEMENT

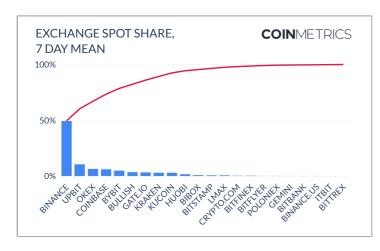
TRADING DIARY, 7 DAY

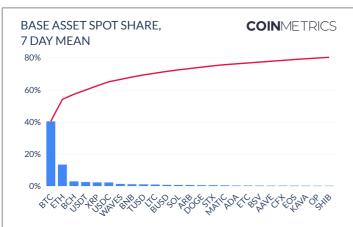
ADVANCING VOLUME \$136,436,071,614

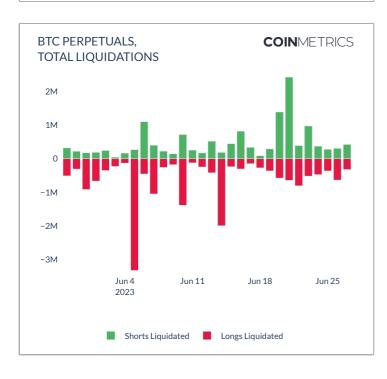
DECLINING VOLUME \$8,973,488,219

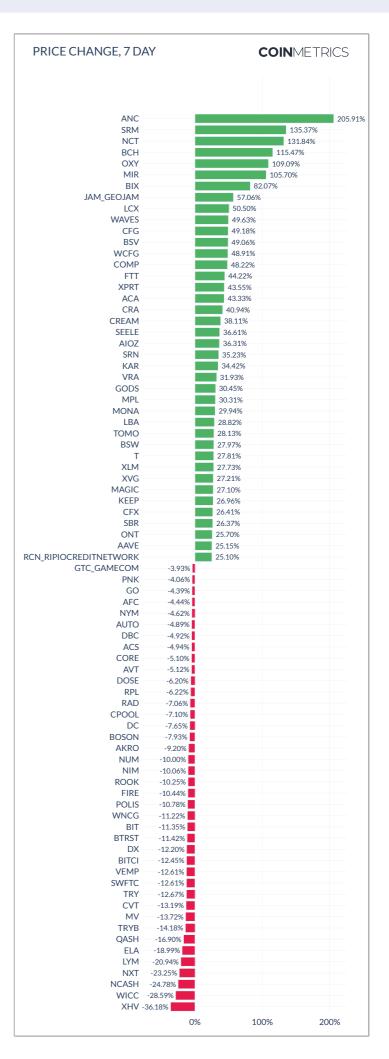
ADVANCING COUNT 556

DECLINING COUNT 89

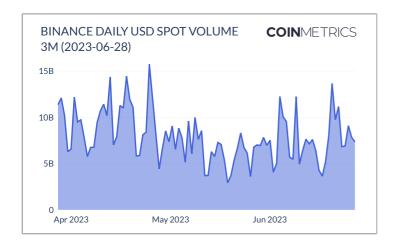


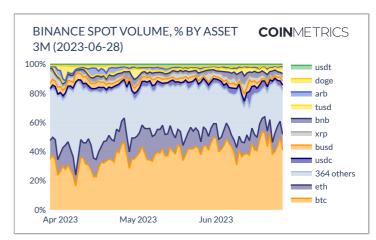


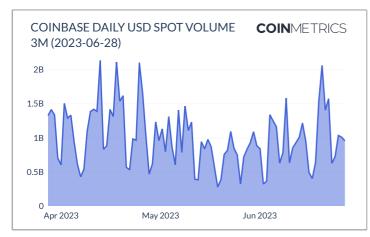


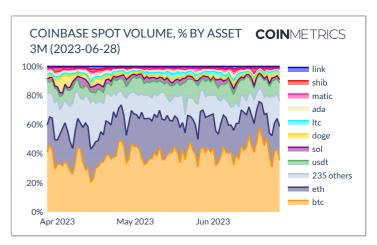


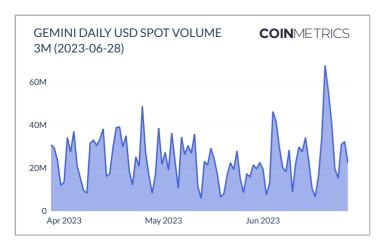
EXCHANGE SPOT VOLUME

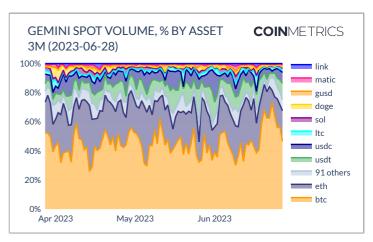


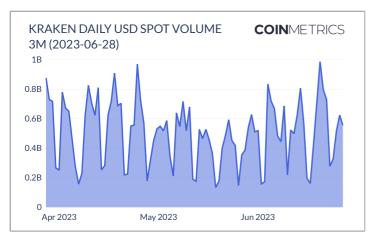


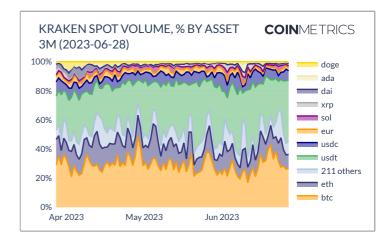




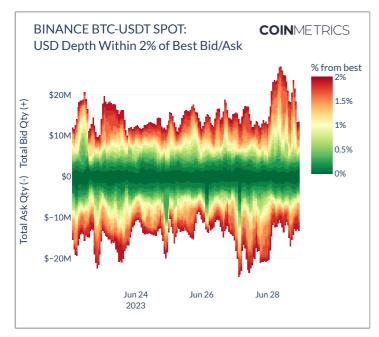


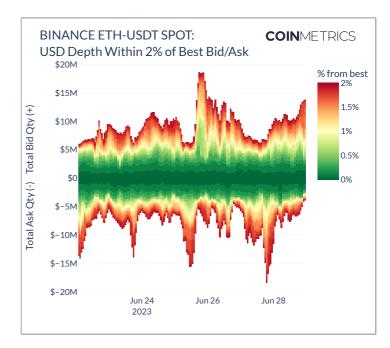


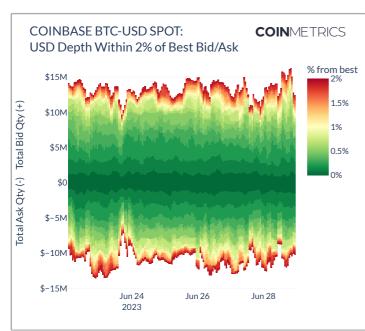


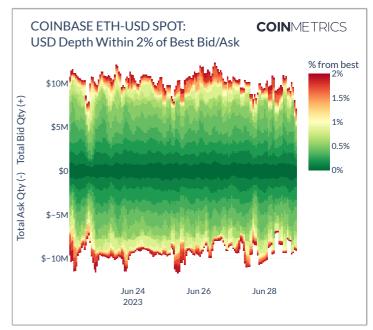


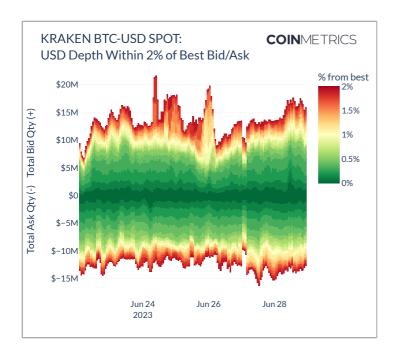
ORDER BOOK DEPTH

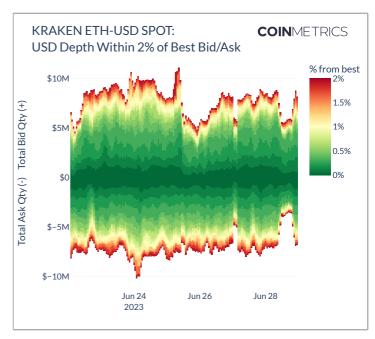




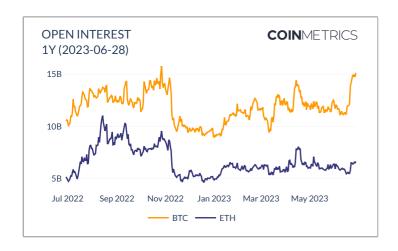


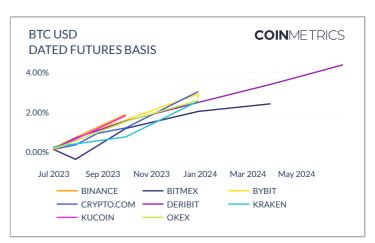






FUTURES FEED





OPEN INTEREST

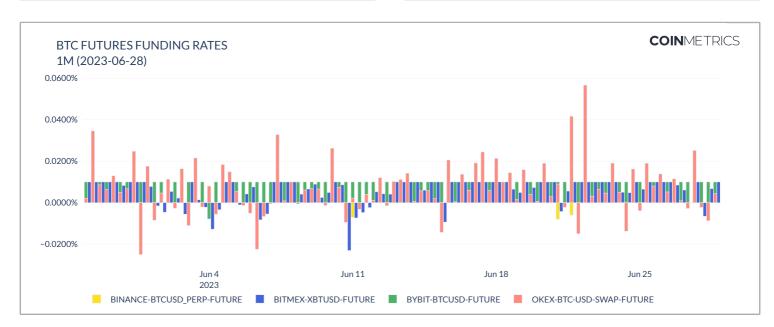
Sum of all reported open interest from futures markets in USD

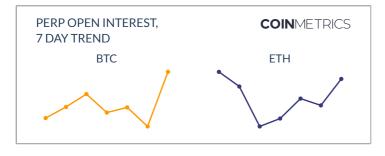
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+6.61%	14,758,791,709	15,126,276,909	14,188,149,576
ETH	+1.88%	6,506,870,430	6,634,061,294	6,393,972,968
XRP	+1.30%	632,536,115	643,785,297	615,050,243
ADA	+9.84%	190,296,899	204,244,722	169,360,684
LTC	+3.14%	410,537,638	436,628,754	398,998,053
LINK	+13.62%	92,760,863	98,151,366	84,920,973
CRO	+7.34%	4,052,843	4,263,636	3,911,696
UNI	+12.59%	34,826,631	44,484,508	29,602,844
ВСН	+221.45%	360,529,750	570,627,692	163,827,931

FUTURES VOLUME

USD value of all reported futures volume

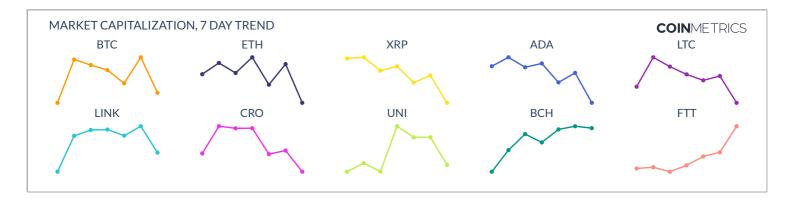
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-21.51%	31,545,766,310	51,065,682,363	19,006,831,595
ETH	-0.56%	14,757,948,583	17,601,011,953	8,294,617,496
XRP	-44.56%	1,078,911,195	1,972,544,002	586,206,008
ADA	-24.10%	478,490,347	714,438,509	376,819,897
LTC	-10.51%	1,098,840,987	1,648,209,091	682,069,960
LINK	+0.73%	341,679,843	537,987,222	264,681,975
CRO	+1.73%	1,842,868	2,207,324	1,130,137
UNI	+38.78%	152,964,683	350,018,227	61,774,422
ВСН	+513.37%	3,818,535,586	5,281,300,964	790,864,887







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	+0.53%	589,660,603,559	595,360,633,206	581,355,386,791
ETH	-2.34%	229,466,558,172	232,621,759,120	224,092,660,417
XRP	-6.08%	48,513,046,848	49,602,993,695	46,515,362,336
ADA	-7.94%	9,783,217,602	10,125,748,522	9,144,585,381
LTC	-3.28%	6,413,972,304	6,675,955,439	6,092,469,343
LINK	+4.65%	5,999,121,195	6,189,638,031	5,571,638,710
CRO	-2.45%	5,708,211,099	5,847,727,788	5,503,422,196
UNI	+2.26%	5,019,562,573	5,439,268,637	4,730,193,071
ВСН	+68.19%	3,890,647,672	4,465,448,445	2,608,114,046
FTT	+67.44%	408,089,864	587,463,267	332,734,749

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.51%	418,151,657,567	422,150,736,100	412,309,246,994
ETH	-2.30%	205,946,264,030	208,833,551,059	201,120,747,431
XRP	-6.09%	22,382,230,592	22,885,509,769	21,460,057,985
ADA	-7.91%	8,660,237,335	8,963,169,602	8,096,258,209
LTC	-3.36%	5,534,235,926	5,761,657,146	5,253,807,555
LINK	+4.64%	3,163,019,342	3,263,697,452	2,937,624,832
CRO	-2.45%	633,740,040	649,232,133	610,996,707
UNI	+4.71%	1,221,459,616	1,324,926,780	1,136,880,443
ВСН	+68.19%	2,628,503,846	3,016,847,277	1,761,987,621
FTT	+67.44%	406,070,411	584,556,175	331,088,195

REALIZED CAP

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.48%	393,925,390,735	394,886,133,372	393,013,554,740
ETH	-0.38%	162,959,844,361	163,201,082,681	162,461,554,169
XRP	-0.08%	49,997,772,667	50,054,469,169	49,925,584,053
ADA	-0.46%	16,653,042,463	16,678,662,784	16,599,739,822
LTC	-0.00%	6,912,930,264	6,918,653,113	6,906,301,972
LINK	+0.47%	7,985,998,140	7,995,832,818	7,958,715,899
CRO	-0.00%	22,413,667,205	22,414,541,364	22,412,835,940
UNI	-1.99%	8,501,689,449	8,619,191,311	8,440,090,947
ВСН	+6.20%	4,402,645,382	4,531,371,015	4,266,950,031
FTT	-3.56%	874,156,517	882,429,639	849,629,284

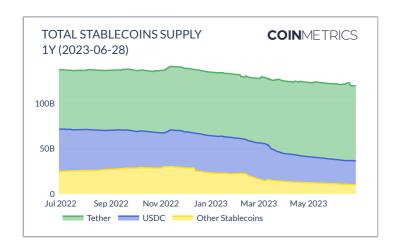
MARKET VALUE TO REALIZED VALUE

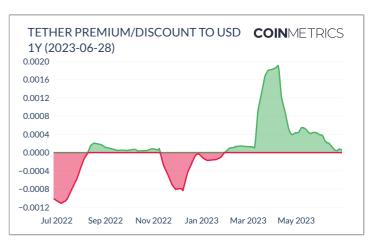
The ratio of a cryptoasset's market cap (aka market value) to realized cap (aka realized value).

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.06%	1.50	1.51	1.48
ETH	-1.96%	1.41	1.43	1.38
XRP	-6.01%	0.97	0.99	0.93
ADA	-7.52%	0.59	0.61	0.55
LTC	-3.27%	0.93	0.97	0.88
LINK	+4.16%	0.75	0.77	0.70
CRO	-2.45%	0.25	0.26	0.25
UNI	+4.34%	0.59	0.64	0.55
ВСН	+58.38%	0.88	0.99	0.61
FTT	+73.62%	0.47	0.69	0.38



STABLECOINS REPORT





MARKET CAPITALIZATION

USD value of current supply

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-0.01%	39,039,774,761	39,052,477,967	39,028,310,476
USDT	-0.01%	888,208,377	888,497,392	887,947,549
USDT_TRX	-0.01%	43,041,201,781	43,055,207,017	43,028,562,451
PAX	-0.98%	992,504,455	998,112,481	983,950,068
DAI	-1.13%	4,433,388,679	4,454,742,351	4,396,886,195
USDC	-1.56%	26,551,845,695	26,708,953,096	26,292,002,579
BUSD	-1.85%	4,222,153,209	4,247,992,933	4,169,559,439
GUSD	-0.11%	565,620,259	566,937,922	564,037,974

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+6.55%	3,393,299,840	4,345,176,062	1,925,893,153
USDT	-40.55%	1,478,509	6,017,986	9,129
USDT_TRX	-9.52%	8,885,664,610	10,480,521,371	5,844,464,108
PAX	-58.85%	19,463,132	56,082,749	4,235,189
DAI	-45.13%	532,194,919	699,957,031	357,446,097
USDC	-44.77%	4,985,285,966	8,012,241,428	2,899,563,631
BUSD	+1,045.38%	85,845,791	399,208,496	7,328,876
GUSD	-34.80%	2,601,308	5,642,844	100,521





TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+7.16%	93,605	106,231	71,841
USDT	+26.09%	18	29	12
USDT_TRX	+6.79%	1,624,466	1,754,744	1,409,488
PAX	-19.23%	112	156	66
DAI	-3.71%	6,219	15,301	3,477
USDC	+11.62%	37,245	43,854	29,030
BUSD	-19.79%	582	677	458
GUSD	+22.81%	103	140	48

MEDIAN TRANSFER VALUE

Median USD value transferred per transfer between addresses

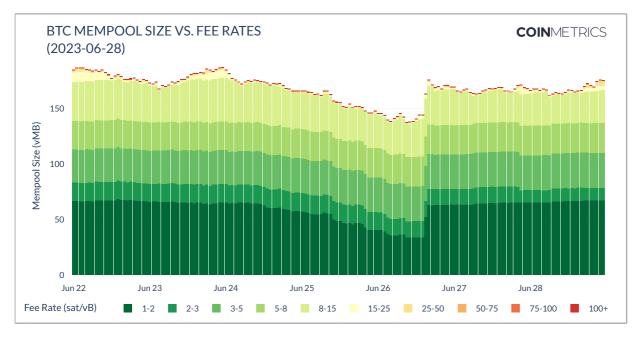
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+10.23%	713	884	502
USDT	+258.83%	386	1,005	173
USDT_TRX	-4.78%	219	249	200
PAX	-15.17%	6,600	11,717	1,930
DAI	-25.02%	1,069	2,000	121
USDC	-32.13%	1,154	1,474	819
BUSD	-2.27%	506	1,000	330
GUSD	-71.20%	6,090	24,990	172

VELOCITY

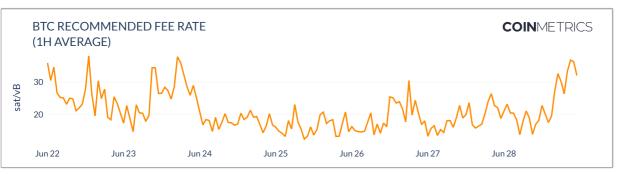
Number of times that an average native unit among the active supply has been transferred in the past 1 year

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.37%	35.26	35.34	35.19
USDT	+0.43%	3.00	3.01	2.99
USDT_TRX	+0.67%	66.49	66.71	66.27
PAX	+0.96%	16.32	16.44	16.26
DAI	+0.09%	266.09	267.38	264.47
USDC	+1.68%	124.22	125.59	123.52
BUSD	+1.85%	62.30	63.27	61.80
GUSD	-0.65%	9.58	9.62	9.56

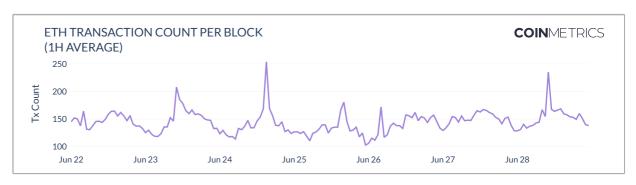
FEE MARKET

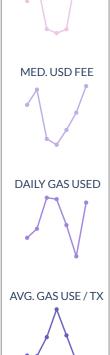


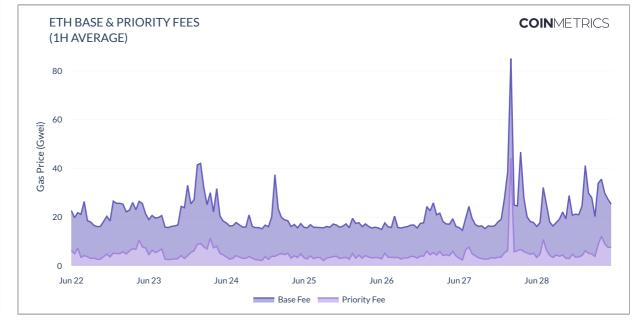












NETWORK DATA FUNDAMENTALS



ACTIVE ADDRESSES

Count of unique addresses that were active in the network

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	-17.46%	958,389	1,011,110	826,245
ETH	+0.72%	528,551	560,996	498,329
XRP	+394.31%	140,890	163,093	31,828
ADA	+5.86%	54,581	66,808	46,307
LTC	+8.57%	238,661	264,471	205,927
LINK	+27.35%	2,705	3,106	2,369
CRO	-14.70%	298	347	254
UNI	+13.29%	1,325	2,726	865
ВСН	+20.06%	63,542	138,491	40,511
FTT	+300.91%	189	441	110

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%	13,765,706	13,766,181	13,765,380
ETH	+0.09%	109,896,413	109,929,797	109,826,442
XRP	-0.01%	46,131,232,356	46,132,705,560	46,130,146,788
ADA	+0.05%	30,289,953,100	30,297,313,272	30,282,477,980
LTC	-0.02%	63,182,205	63,198,979	63,162,414
LINK	-0.01%	527,246,665	527,285,118	527,183,633
CRO	-0.00%	11,102,252,248	11,102,350,935	11,102,123,109
UNI	+2.39%	243,287,774	246,091,349	240,345,463
ВСН	+0.04%	13,127,210	13,129,350	13,124,468
FTT	+0.00%	327,267,550	327,267,550	327,267,550

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

TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-15.26%	382,677	433,747	331,234
ETH	+4.01%	1,029,372	1,094,481	934,895
XRP	+29.90%	1,106,688	1,269,615	977,398
ADA	+10.94%	73,104	77,699	64,866
LTC	+14.07%	132,517	160,569	106,415
LINK	+13.65%	3,448	3,818	3,061
CRO	-14.53%	364	435	308
UNI	+14.96%	1,756	3,415	1,009
ВСН	+16.75%	38,438	152,508	14,038
FTT	+421.94%	395	1,023	163

TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-12.97%	4,520,169,780	5,658,629,483	3,200,852,348
ETH	-18.38%	2,965,364,686	4,159,373,775	1,846,834,891
XRP	-5.98%	486,618,912	691,553,066	214,222,468
ADA	-3.75%	10,949,919,190	11,582,551,681	9,684,746,987
LTC	-0.83%	87,620,458	97,202,976	73,636,160
LINK	+183.47%	76,193,818	250,120,549	29,051,861
CRO	+56.39%	890,496	1,380,273	480,706
UNI	+485.89%	32,526,345	51,265,987	7,965,096
ВСН	+2.08%	104,978,557	197,916,552	49,693,633
FTT	+729.19%	3,255,541	9,023,516	1,088,238

ADDRESSES ≥ \$1

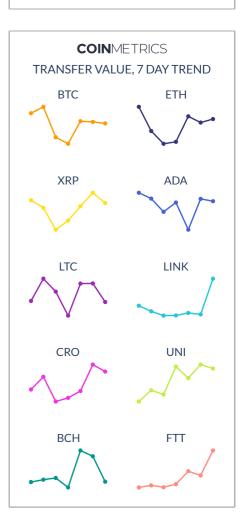
Count of addresses holding at least \$1 worth of native units

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	-0.18%	40,495,688	40,645,475	40,388,667
ETH	-0.41%	59,891,291	60,106,160	59,578,669
XRP	+0.15%	4,675,151	4,678,609	4,671,615
ADA	-0.53%	3,538,781	3,548,193	3,522,988
LTC	+0.12%	2,332,631	2,344,112	2,320,009
LINK	+0.62%	515,054	516,331	513,077
CRO	-0.05%	150,153	150,327	149,916
UNI	-0.16%	277,810	279,859	276,573
всн	+12.14%	4,523,337	4,682,210	4,158,151
FTT	+4.50%	20,980	21,655	20,610

ADDRESSES ≥ \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
втс	+0.17%	74,587	74,889	74,193
ETH	-1.90%	10,723	10,841	10,517
XRP	-4.22%	1,094	1,113	1,066
ADA	-6.14%	802	824	764
LTC	-1.45%	491	500	476
LINK	+1.97%	319	327	304
CRO	+2.08%	48	49	48
UNI	+4.61%	297	312	282
ВСН	+41.10%	304	336	236
FTT	+28.57%	15	18	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 $^{\text{TM}}$ 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. More info on datonomy.

SECTOR INDEXES

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

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

CMBI SINGLE ASSET SERIES

The CMBI Single Asset Series provide the cryptoasset community, investors and asset managers with publicly available and investable benchmarks that reliably and accurately track the price of a single cryptoasset, through sourcing market prices from numerous global liquidity venues. More information on Coin Metrics Indexes.

CMBI BITCOIN

Daily level for Coin Metrics Bletchley Index (CMBI) Bitcoin for the previous month. CMBI Bitcoin tracks the price and performance of Bitcoin by sourcing BTC/USD market prices from numerous global liquidity venues. As of 6/25/2023 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 6/25/2023 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. <u>More information</u> 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 Data Encyclopedia.

FUTURES BASIS

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

FUTURES VOLUME

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