STATE OF THE MARKET

NOV. 2 - 8, 2023

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

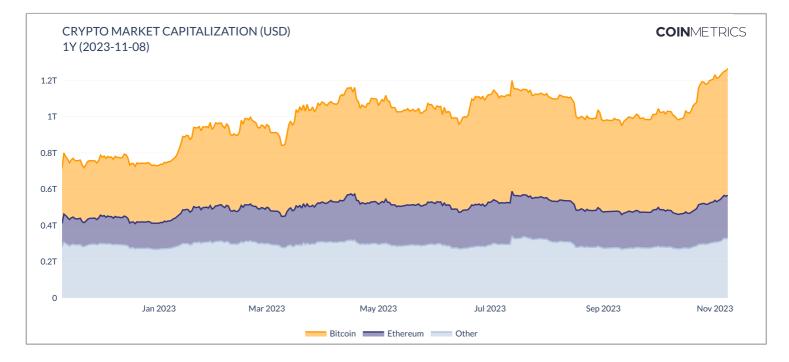




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MARKET SUMMARY

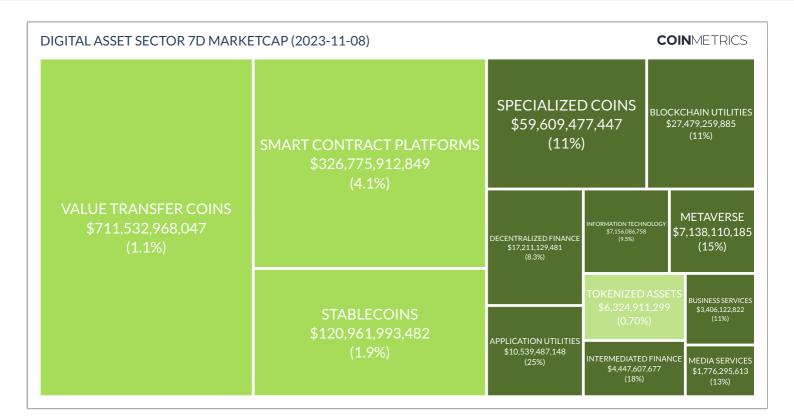
Though echoes of the FTX fraud continue to reverberate, Sam Bankman-Fried has finally faced the music. A New York jury found Bankman-Fried guilty of 7 charges (from wire fraud to money laundering), with the ineffective altruist now at risk of a max sentence of 110 years in prison. Sam's sentencing won't be finalized until March 2024, and he may face another slew of charges (including bribery) that same month, assuming the Bahamian government cooperates with U.S. prosecutors. In parallel, the FTX bankruptcy estate has filed to liquidated millions in trust assets, with \$744M in Grayscale (i.e. GBTC) and Bitwise funds slated for sale. Discussions regarding "FTX 2.0" remain an inexplicably stubborn fixture, with VC firm Proof Group rumored as a top contender in the effort to re-launch the exchange. Meanwhile, startups across the sector push forward with workforce reductions. NFT marketplace OpenSea slashed head count by 50%, with CEO Devin Finzer reporting the shift to a "smaller team" would enable a "direct connection to users" ahead of their OpenSea 2.0 upgrade. Ava Labs- the team behind the Avalanche blockchain- is also making staff cuts, laying off 12% of their team in order to "double down on the growth of our firm and the Avalanche ecosystem," according to founder Emin Gün Sirer. We'd be remiss to exclude the latest chatter about spot ETF approval. According to Bloomberg analysts James Seyffart & Eric Balchunas, the SEC now has an 8-day 'window' to approve 12 outstanding BTC ETF filings simultaneously. This fleeting timeframe (November 8-17) is linked to a gap in the 'comment period' for the current cohort of applications, though the Commission could also opt to approve a subset of filings anytime before January 10. The analyst duo pegs approval-by-January at 90% odds, particularly given Grayscale's recent win over the SEC in its circuit court GBTC conversion suit. Beyond the ETF push, tokenization of Real World Assets (RWAs) is taking plenty of mindshare. Banking giant HSBC is partnering with Metaco (a custody platform recently acquired by Ripple) to manage holdings of tokenized securities. After going live with a "tokenized gold" product last week, HSBC accelerates a push to bring TradFi assets like bonds on-chain, citing "increasing demand for custody and fund administration of digital assets" from asset managers. Hong Kong is also mulling opportunities amid the tokenization trend. The region's Securities and Futures Commission (SFC) has released guidelines outlining 4 main qualifications for token issuance, including tokenization arrangement, disclosure, intermediaries, and staff competence. SEBA Bank is among the first firms to receive approval for conducting "crypto-related service" in Hong Kong, allowing the Swiss entity to manage and advise on digital assets for clients in the region. As digital assets infiltrate ETFs and on-chain bonds beckon adopters, the cross-pollination of TradFi and DeFi adds further fuel to the fire of crypto's next bull cycle.

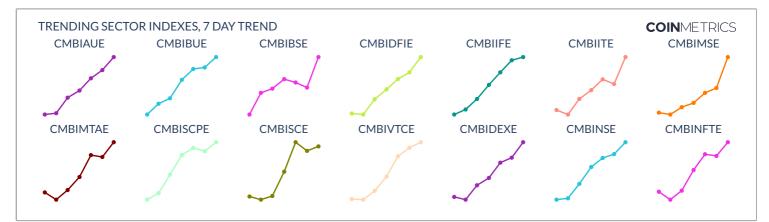


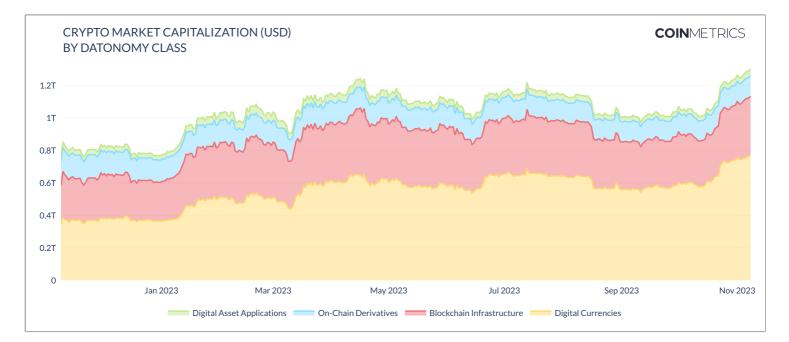
PRICE (CMBI CONSTITUENTS)

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
BTC	\$35,624.26	+1.97%	\$35,624.75	\$34,510.63	+102.52%	\$35,624.75	\$15,799.60
ETH	\$1,895.78	+4.73%	\$1,900.00	\$1,810.14	+45.51%	\$2,129.88	\$1,103.83
SOL	\$43.10	+5.90%	\$44.07	\$39.09	+147.68%	\$44.07	\$8.35
ADA	\$0.36	+9.89%	\$0.37	\$0.32	-2.11%	\$0.45	\$0.24
DOGE	\$0.08	+10.35%	\$0.08	\$0.07	-16.35%	\$0.10	\$0.06
TRX	\$0.10	-1.08%	\$0.10	\$0.10	+71.01%	\$0.10	\$0.05
MATIC	\$0.80	+20.97%	\$0.80	\$0.66	-28.86%	\$1.52	\$0.50
BNB	\$246.68	+6.23%	\$253.80	\$228.84	-18.37%	\$348.71	\$204.88
AVAX	\$13.01	+10.03%	\$13.01	\$11.82	-15.71%	\$22.04	\$8.82
LINK	\$14.58	+31.92%	\$14.58	\$11.05	+102.45%	\$14.58	\$5.09
CMBI10	\$3,541.43	+3.48%	\$3,541.43	\$3,393.69	+67.10%	\$3,541.43	\$1,838.40







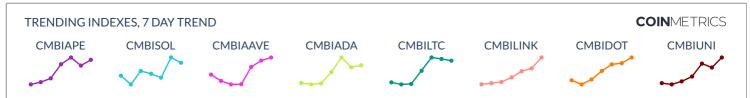
INDEX ROUNDUP

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
CMBIBTC	\$35,624.26	+1.97%	\$35,624.75	\$34,510.63	+102.51%	\$35,624.75	\$15,799.60
CMBIBTCT	\$38,274.28	+1.97%	\$38,274.82	\$37,077.82	+102.51%	\$38,274.82	\$16,974.91
CMBIETH	\$1,895.78	+4.73%	\$1,900.00	\$1,810.14	+45.51%	\$2,129.88	\$1,103.83
CMBIETHT	\$2,058.04	+4.73%	\$2,062.63	\$1,965.07	+45.51%	\$2,312.19	\$1,198.31

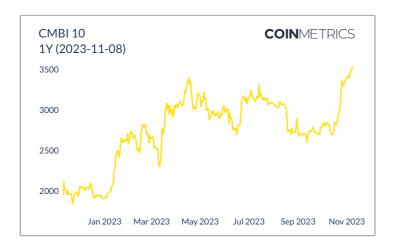


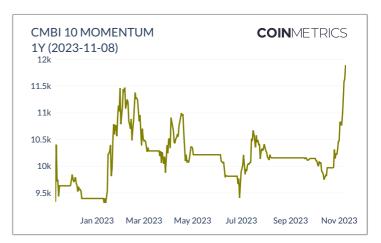


MULTI ASSET INDEXES

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

INDEX	CLOSING PRICE	7D CHANGE	7D MAX	7D MIN	52W CHANGE	52W MAX	52W MIN
CMBI10	\$3,541.43	+3.48%	\$3,541.43	\$3,393.69	+67.10%	\$3,541.43	\$1,838.40
CMBI10E	\$5,568.63	+10.08%	\$5,568.63	\$5,029.26	+18.15%	\$5,889.09	\$3,409.70
CMBI10EX	\$7,046.61	+6.04%	\$7,046.61	\$6,632.39	+28.55%	\$7,991.44	\$4,562.49
CMBI10M	\$11,893.40	+9.94%	\$11,893.40	\$10,760.58	+14.31%	\$11,893.40	\$9,310.27
CMBIBE	\$17,222.17	+2.84%	\$17,234.72	\$16,622.58	+80.59%	\$17,234.72	\$8,387.96

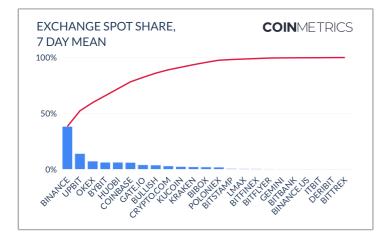


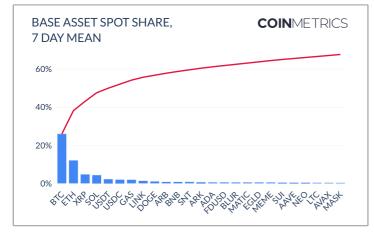


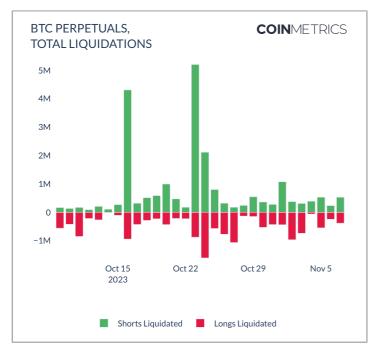
MARKET MOVEMENT

TRADING DIARY, 7 DAY

ADVANCING VOLUME	\$161,670,260,365
DECLINING VOLUME	\$9,794,848,239
ADVANCES	544
DECLINES	175

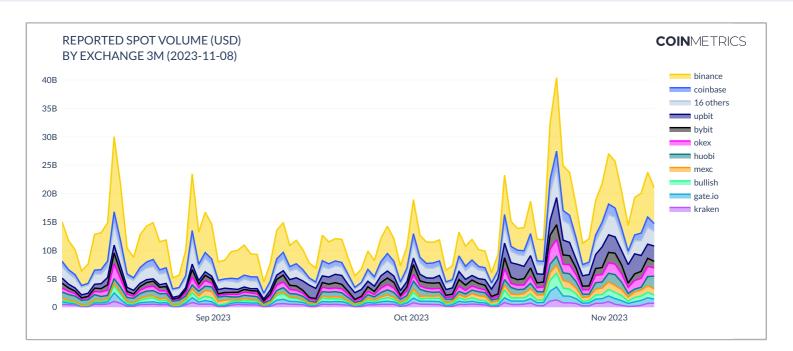


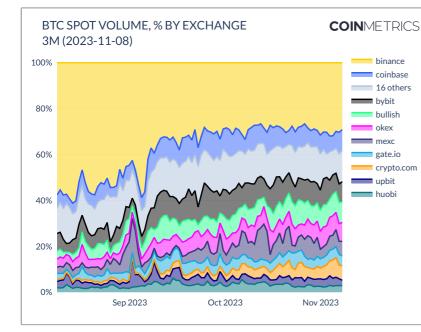




PRICE CHANGE, 7 DAY					
GAS -				132.97%	
MNDE				100.91%	
POLC -			89	.54%	
MPL			83.4	8%	
CAKE			75.42%		
SNT -			65.08%		
TWT			61.61%		
TEL -			55.36%		
GRAIL			54.67%		
OCN			54.66%		
MOVR			54.58%		
SFUND			53.89%		
CVT			53.50%		
XPRT -			51.53%		
BLUR			48.66%		
SUSHI -			48.55%		
WEMIX			17.41%		
NEON -		4	6.31%		
ORCA		4	5.56%		
ASTO		-44	4.73%		
STEP		43	3.60%		
ARK		43	3.55%		
GF		42			
UBT		42	.11%		
BLD -		41.	.05%		
SIDUS		40.	20%		
NEO		-38.9	98%		
EGLD -		38.6			
OSMO		38.2	21%		
KAN		38.0)2%		
OXY -		37.5			
KIN –		37.2	.6%		
TAPT		36.4	0%		
BONK		35.40	3%		
TVK		34.10)%		
PRIME		33.67			
EWT		33.52	!%		
KAS		33.29			
YGG		33.01	%		
RSS3		32.14	%		
FITFI	-8.05%	_			
UMEE	-8.089	=			
PHA	-8.119	=			
ETN	-8.82%	=			
ROOK	-8.92%	=			
BTTC -	-9.63%	_			
REV	-9.91%	=			
ORBS -	-9.93%	_			
CQT -	-10.90%	_			
QRDO -	-11.00%				
RACA -	-11.23%				
CEL -	-11.36%	=			
LOOM -	-11.70%				
CRPT	-11.94%				
ARV -	-13.40%				
AIDOGE	-14.08%				
Powr	-14.53%				
	-14.65%				
LADYS Floki	-15.13%				
FLORI -	-15.35% -16.61%				
SNM -	-16.76%				
LQTY -	-16.76%				
SAITAMA -	-17.99%				
SATTAMA STARL	-19.06%				
MCO2	-19.95%				
WNCG -	-20.39%				
WOJAK -	-21.61%				
DOSE -	-22.47%				
EVER -	-22.47%				
AUTO -	-22.69%				
JAM_GEOJAM -	-23.42%				
POLY -	-26.31%				
ECOX -	-27.99%				
TOMO -	-27.99%				
QSP -	-32.35%				
VELA -	-33.84%				
BTM -	-39.11%				
POLYX -	-48.06%				
COVER -	-49.91%				
	-50%	0% 509	2 10	0% 150%	
	5070		10	130%	

AGGREGATE VOLUME





BTC SPOT VOLUME LEADERS

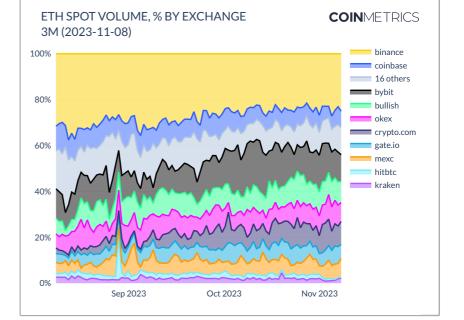
Top 10 exchanges by Bitcoin (BTC) spot volume reported over past 3 months.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	-27.81%	1,533,161,480	2,210,755,607	891,229,903
COINBASE	-9.57%	413,855,647	554,717,426	190,526,864
BYBIT	-41.76%	482,771,200	833,549,899	234,877,329
BULLISH	-30.80%	462,879,480	703,087,457	215,916,214
OKEX	-28.34%	409,615,822	629,701,877	229,989,343
MEXC	+3.48%	287,574,482	350,958,087	171,026,578
GATE.IO	-20.42%	224,243,693	292,110,363	127,603,420
CRYPTO.COM	-16.08%	330,017,776	413,791,651	182,254,627
UPBIT	-46.79%	163,514,847	242,042,599	115,525,868
HUOBI	-4.90%	133,733,794	165,182,125	84,308,964

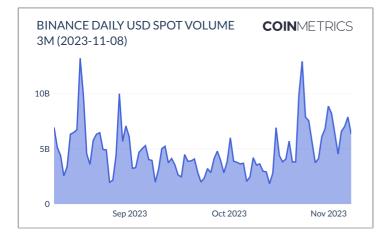
ETH SPOT VOLUME LEADERS

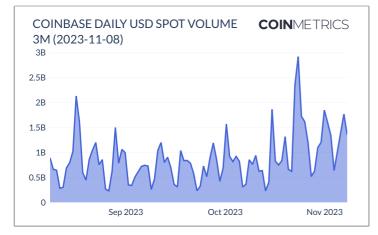


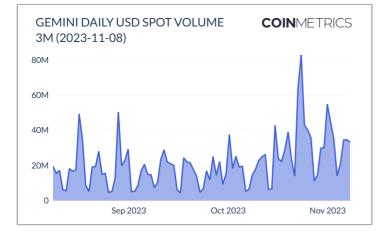
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BINANCE	-28.53%	691,978,947	890,375,866	386,320,105
COINBASE	-29.09%	185,061,349	256,288,066	84,512,296
BYBIT	-54.12%	398,236,191	582,319,447	213,939,469
BULLISH	-42.11%	287,887,690	359,040,259	162,253,013
OKEX	-36.12%	266,892,666	347,141,128	180,559,219
CRYPTO.COM	-47.18%	295,489,310	432,675,960	193,256,760
GATE.IO	-32.94%	190,839,824	239,890,434	108,660,666
MEXC	+10.28%	183,570,687	200,393,832	132,432,463
НІТВТС	-75.53%	19,861,085	39,160,566	9,582,071
KRAKEN	+6.24%	41,048,329	62,368,620	18,128,532

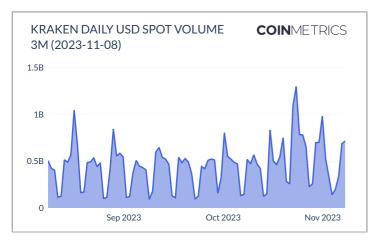


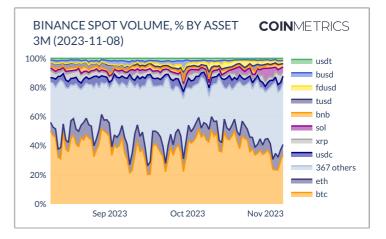
EXCHANGE SPOT VOLUME

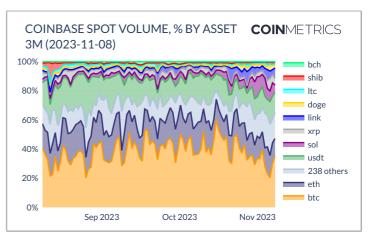


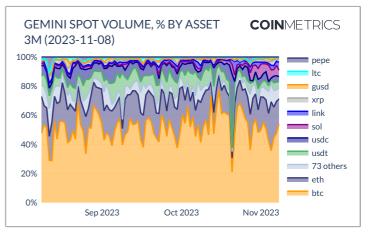


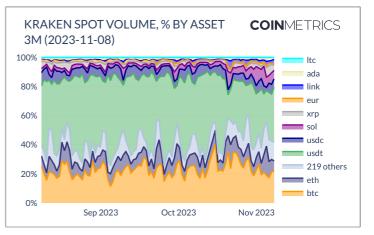




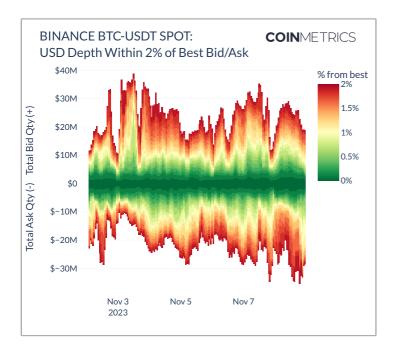


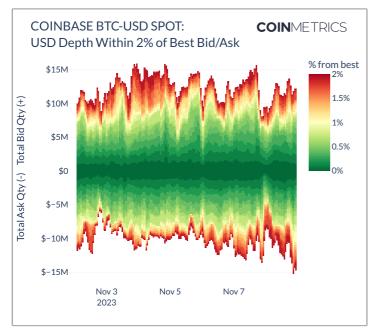


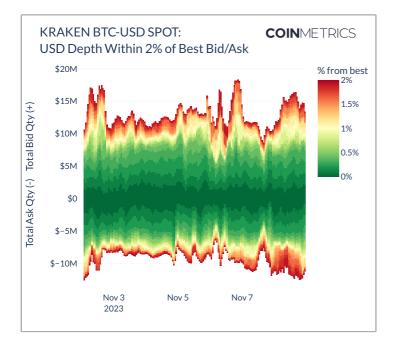


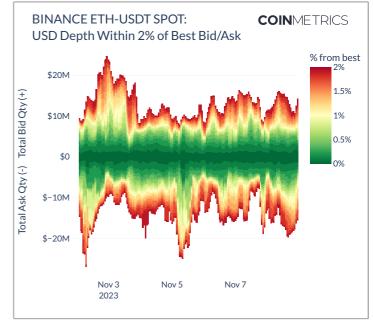


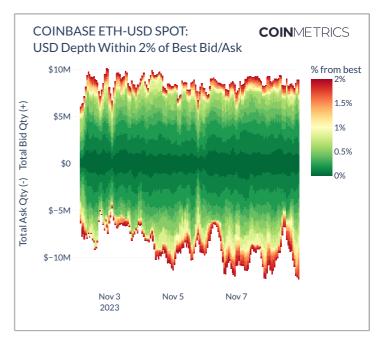
ORDER BOOK DEPTH

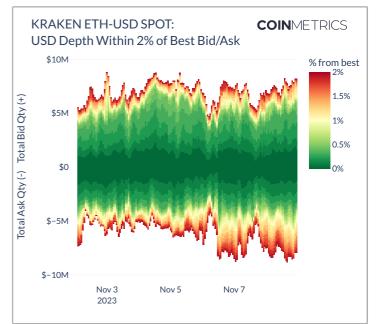




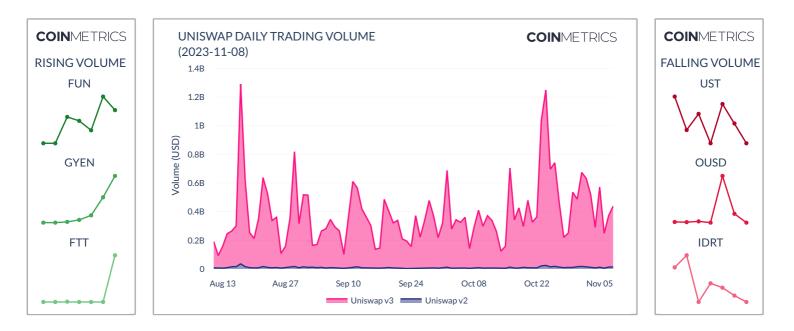


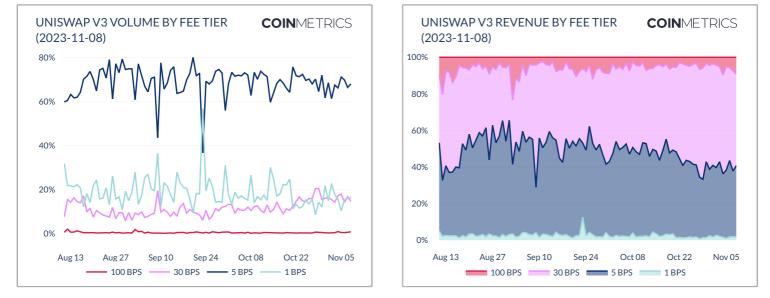


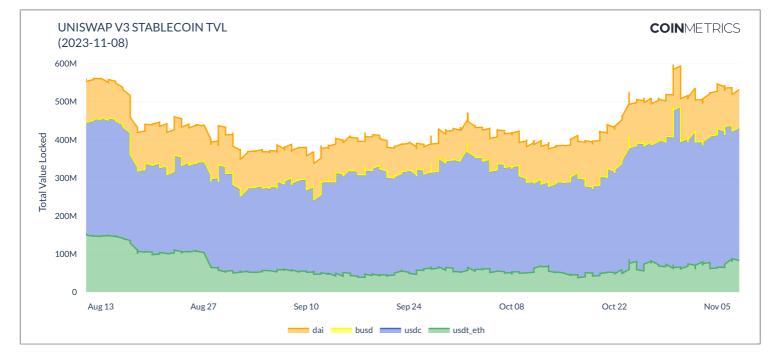




DEX DIGEST







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

DEFI BALANCE SHEETS



COMPOUND V2 BALANCE SHEET

PROTOCOL HEALTH RATIOS	VALUE	7D CHANGE
CURRENT RATIO	0.74125	-0.0%
DEBT TO ASSETS RATIO	0.970467	-0.08%
PROTOCOL UTILIZATION RATIO	0.289184	0.28%
LIQUID SUPPLY RATIO	0.74125	-0.0%
ASSETS AND LIABILITIES	VALUE	7D CHANGE
ASSETS TOTAL USD	\$1,634M	-2.05%
ASSETS TOTAL COUNT	19	0.0%
LIABILITIES TOTAL USD	\$1,586M	-2.12%
LIABILITIES TOTAL COUNT	19	0.0%
LOANS LENT TOTAL USD	\$459M	-1.85%
TVL TOTAL USD	\$1,176M	-2.12%
NET WORKING CAPITAL USD	-\$410M	-2.11%

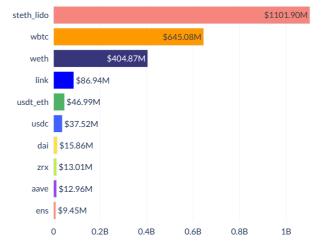
AAVE V2 BALANCE SHEET

PROTOCOL HEALTH RATIOS	VALUE	7D CHANGE
CURRENT RATIO	0.685491	0.78%
DEBT TO ASSETS RATIO	1.000172	-0.0%
PROTOCOL UTILIZATION RATIO	0.314338	-1.66%
LIQUID SUPPLY RATIO	0.685491	0.78%
ASSETS AND LIABILITIES	VALUE	7D CHANGE
ASSETS TOTAL USD	\$3,462M	0.16%
ASSETS TOTAL COUNT	52	0.0%
LIABILITIES TOTAL USD	\$3,463M	0.16%
LIABILITIES TOTAL COUNT	52	0.0%
LOANS LENT TOTAL USD	\$1,089M	-1.5%
TVL TOTAL USD	\$2,374M	0.94%
NET WORKING CAPITAL USD	-\$1,089M	-1.5%

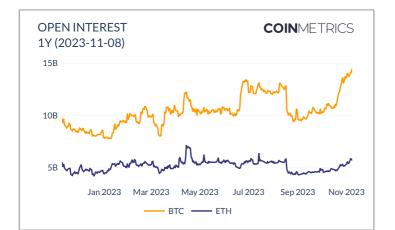
TOP 10 ASSETS BY TOTAL VALUE LOCKED (USD)

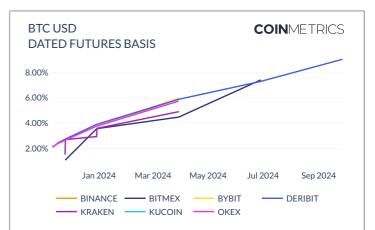


TOP 10 ASSETS BY TOTAL VALUE LOCKED (USD)



FUTURES FEED





OPEN INTEREST

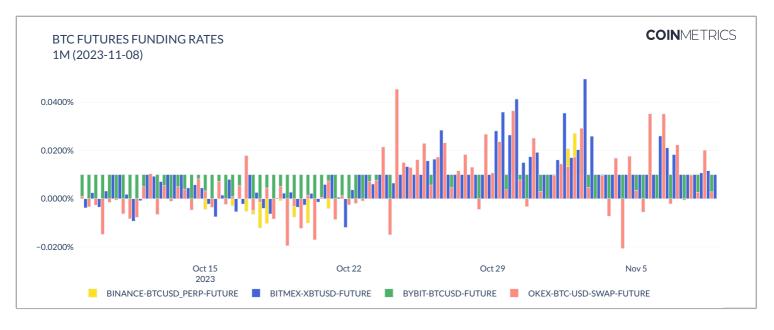
Sum of all reported open interest from futures markets in USD

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+3.22%	14,043,191,223	14,505,126,193	13,701,428,737
ETH	+1.55%	5,635,284,713	5,841,315,873	5,411,490,924
XRP	+12.13%	549,158,008	657,934,245	501,182,574
LINK	+15.07%	295,127,093	327,975,074	262,796,684
ADA	+6.13%	128,117,737	137,224,091	122,169,026
CRO	+57.11%	5,409,773	6,987,344	4,447,502
LTC	+7.33%	224,137,667	241,078,380	211,961,010
UNI	-19.09%	71,230,746	81,311,123	65,791,805
BCH	+3.00%	187,793,213	193,336,990	182,637,538

FUTURES VOLUME

USD value of all reported futures volume

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	-20.46%	30,967,729,255	44,465,674,191	15,520,706,451
ETH	-37.66%	13,396,662,913	18,082,759,960	7,705,572,073
XRP	-0.92%	2,674,919,711	4,993,904,626	690,572,937
LINK	+58.33%	1,740,047,528	2,406,426,089	785,842,989
ADA	-51.97%	553,763,766	816,028,904	253,698,568
CRO	+51.44%	15,030,652	36,461,246	6,549,458
LTC	-36.32%	504,447,502	681,135,093	250,454,413
UNI	-64.40%	283,912,160	592,563,689	155,947,001
ВСН	-39.63%	436,058,247	740,746,014	183,760,921







OPTIONS SNAPSHOT

BTC OPEN INTEREST

ETH OPEN INTEREST

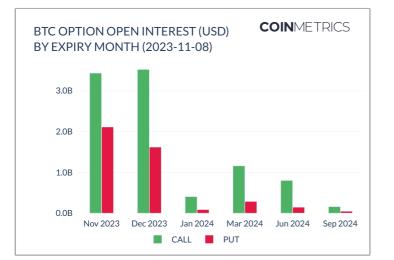
TOTAL	\$12,725,629,533	TOTAL	\$5,975,086,496
CALLS	\$8,801,547,044	CALLS	\$4,241,134,285
PUTS	\$3,924,082,489	PUTS	\$1,733,952,211

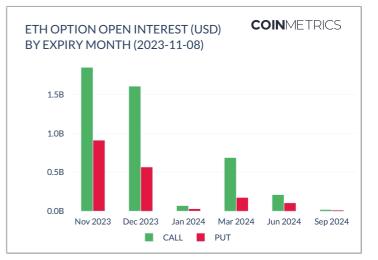


AT THE MONEY OPTIONS

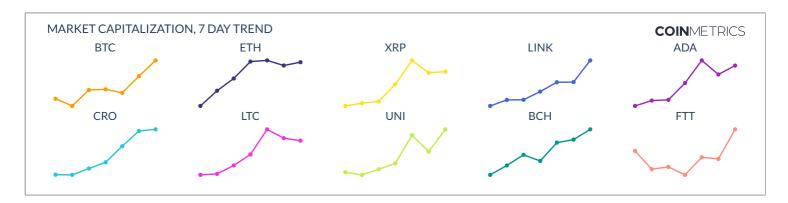
Market greeks, implied volatility, and mark contract prices for BTC options at or near strike price.

			CALLS								PUTS	5		
VEGA	THETA	RHO	DELTA	GAMMA	IV	MARK	SYMBOL	MARK	IV	GAMMA	DELTA	RHO	THETA	VEGA
11.64108	-77.62518	1.82903	0.65857	0.00029	0.6817	0.0335	BTC-9NOV23-34500	0.0004	0.6818	0.00029	-0.34143	-1.00593	-77.62518	11.64108
12.37987	-82.55156	1.62406	0.58295	0.00031	0.5994	0.0265	BTC-9NOV23-34750	0.0006	0.5999	0.00031	-0.41708	-1.23153	-82.55269	12.38004
12.65353	-84.37637	1.4099	0.50469	0.00031	0.5407	0.0196	BTC-9NOV23-35000	0.001	0.5406	0.00031	-0.49531	-1.46615	-84.37637	12.65353
12.44073	-82.95743	1.1952	0.42679	0.00031	0.4905	0.0135	BTC-9NOV23-35250	0.0018	0.4904	0.00031	-0.57321	-1.70139	-82.95743	12.44073
27.80856	-42.878	5.71401	0.39297	0.0001	0.5189	0.0354	BTC-10NOV23-34500	0.0022	0.5189	0.0001	-0.60703	-10.65708	-42.878	27.80856
8.59391	-109.48087	1.21623	0.70878	0.00029	0.517	0.0296	BTC-10NOV23-34750	0.0034	0.517	0.00029	-0.29122	-0.52789	-109.48087	8.59391
3.24267	-2.94797	0.31514	0.01906	0.00002	0.516	0.0243	BTC-10NOV23-35000	0.005	0.516	0.00002	-0.98093	-20.78004	-2.94832	3.24305
9.93105	-131.96716	0.94088	0.54551	0.00032	0.5143	0.0194	BTC-10NOV23-35250	0.0072	0.5143	0.00032	-0.45449	-0.82832	-131.96716	9.93105
10.55396	-70.39231	2.03639	0.73058	0.00026	0.5032	0.0379	BTC-11NOV23-34500	0.0044	0.5031	0.00026	-0.26952	-0.79841	-70.39706	10.55711
11.69652	-77.99486	1.84926	0.66098	0.00029	0.5027	0.0324	BTC-11NOV23-34750	0.006	0.5027	0.00029	-0.33891	-1.0057	-77.9952	11.69386





MARKET CAPITALIZATION



MARKET CAP

USD value of current supply. Also referred to as market capitalization.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+2.65%	686,544,031,602	699,376,281,705	677,927,038,799
ETH	+5.35%	231,888,767,599	235,867,124,444	223,432,538,646
XRP	+13.59%	65,443,904,549	71,505,550,217	60,576,569,057
LINK	+35.78%	12,458,222,238	14,913,544,540	10,983,923,457
ADA	+10.95%	11,843,118,999	12,566,444,684	11,185,690,357
CRO	+21.87%	7,249,076,959	8,078,132,255	6,622,228,747
LTC	+5.62%	5,296,932,897	5,502,854,782	5,119,799,804
UNI	+10.69%	4,870,788,650	5,189,110,590	4,656,314,784
BCH	+4.69%	4,705,061,004	4,814,903,075	4,599,109,092
FTT	+8.07%	402,004,167	446,653,574	376,223,012

FREE FLOAT MARKET CAP

The sum USD value of the free float supply.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+2.61%	482,640,276,655	491,569,760,063	476,697,214,494
ETH	+5.11%	204,513,504,031	208,007,556,271	197,183,055,384
XRP	+13.73%	31,000,355,364	33,895,682,895	28,678,155,329
LINK	+35.78%	6,791,605,145	8,130,167,709	5,987,910,782
ADA	+11.01%	10,571,838,493	11,217,961,633	9,984,169,921
CRO	+13.45%	717,025,433	766,289,138	674,605,711
LTC	+5.70%	4,476,860,775	4,650,276,020	4,326,933,615
UNI	+10.70%	1,260,101,792	1,342,510,719	1,204,607,197
BCH	+4.69%	3,170,987,359	3,244,869,931	3,099,559,365
FTT	+8.07%	402,004,167	446,653,574	376,223,012

REALIZED CAP

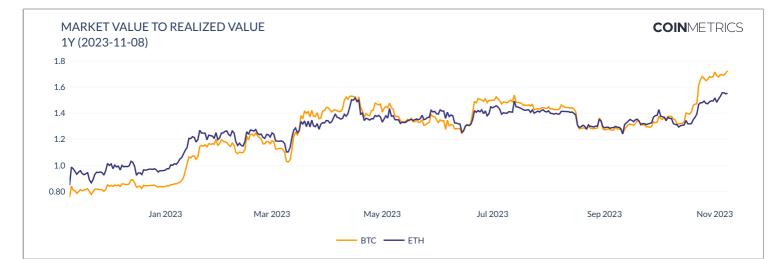
USD value for all native units based on the USD closing price on the day that a unit last moved.

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+0.45%	404,605,154,288	405,558,367,962	403,755,086,408
ETH	+0.66%	151,233,868,705	151,631,609,165	150,635,204,717
XRP	+1.36%	53,449,698,250	53,836,839,780	53,093,804,452
LINK	+3.68%	9,012,199,599	9,211,540,845	8,885,011,034
ADA	+1.15%	15,599,311,904	15,686,543,549	15,508,546,907
CRO	+1.30%	20,709,171,915	20,842,752,460	20,574,407,796
LTC	+0.10%	6,730,696,902	6,736,488,520	6,725,724,510
UNI	+0.35%	7,842,699,869	7,860,944,004	7,832,368,039
BCH	+0.24%	4,731,356,708	4,736,606,538	4,725,357,655
FTT	+0.06%	635,343,173	635,963,559	634,934,652

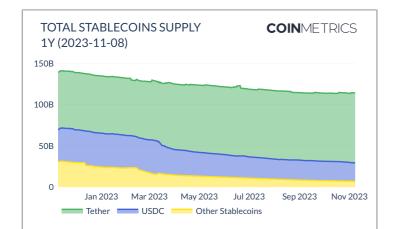
MARKET VALUE TO REALIZED VALUE

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
BTC	+2.20%	1.70	1.72	1.68
ETH	+4.65%	1.53	1.56	1.48
XRP	+12.06%	1.22	1.33	1.14
LINK	+30.96%	1.38	1.62	1.24
ADA	+9.69%	0.76	0.80	0.72
CRO	+20.30%	0.35	0.39	0.32
LTC	+5.52%	0.79	0.82	0.76
UNI	+10.31%	0.62	0.66	0.59
ВСН	+4.44%	0.99	1.02	0.97
FTT	+8.01%	0.63	0.70	0.59



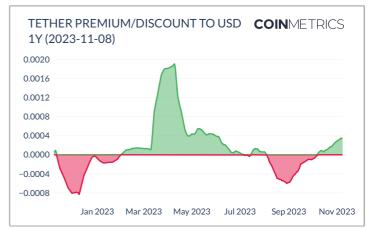
STABLECOINS REPORT



MARKET CAPITALIZATION

USD value of current supply

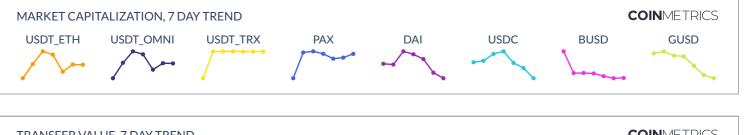
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+0.02%	39,044,074,494	39,052,379,764	39,034,991,998
USDT_OMNI	+0.03%	888,480,264	888,675,626	888,235,375
USDT_TRX	+2.26%	45,712,058,441	45,865,036,215	44,842,049,571
PAX	+2.10%	458,787,494	461,370,937	450,931,231
DAI	-0.60%	3,707,909,763	3,726,540,532	3,685,065,706
USDC	-0.89%	22,481,711,649	22,620,974,358	22,285,183,329
BUSD	-3.17%	1,900,239,498	1,947,905,793	1,885,540,506
GUSD	-2.08%	161,570,759	163,057,531	159,388,918



TRANSFER VALUE, ADJUSTED

USD value of the sum native units transferred removing noise

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-19.50%	2,908,325,311	3,948,383,156	1,250,683,018
USDT_OMNI	+81.87%	1,333,484	6,762,826	21,112
USDT_TRX	+21.75%	10,174,761,602	13,525,280,364	5,227,976,605
PAX	-76.65%	21,566,264	49,744,662	488,701
DAI	-74.05%	3,125,550,430	6,188,017,006	1,087,588,765
USDC	-33.97%	3,403,700,117	5,085,892,939	1,861,558,936
BUSD	-98.34%	141,712,593	492,273,593	676,850
GUSD	+19.41%	4,046,531	9,164,736	526,558





TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	-8.04%	116,868	131,119	93,657
USDT_OMNI	+76.19%	21	37	10
USDT_TRX	-13.71%	1,906,353	2,170,322	1,682,694
PAX	+23.23%	103	148	53
DAI	-19.83%	4,088	4,926	3,534
USDC	-16.86%	42,227	49,613	34,503
BUSD	-27.50%	441	589	389
GUSD	+111.81%	387	1,536	54

MEDIAN TRANSFER VALUE

 $\label{eq:Median_USD_value_transferred_per transfer between addresses} \\$

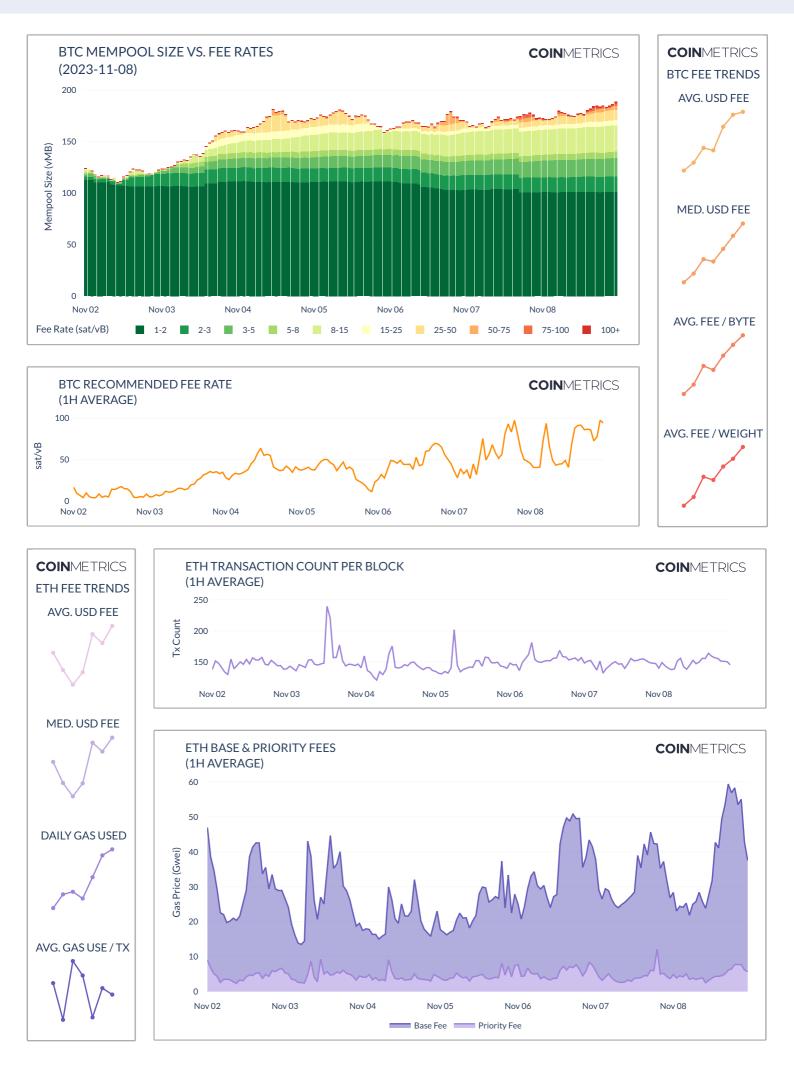
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
USDT_ETH	+1.42%	646	726	500
USDT_OMNI	-59.46%	1,238	5,384	64
USDT_TRX	+54.22%	158	204	110
PAX	+487.57%	4,941	9,979	450
DAI	-10.83%	1,737	2,243	1,000
USDC	-33.23%	1,112	1,500	849
BUSD	-12.38%	338	450	187
GUSD	-45.04%	913	2,489	67

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	-0.41%	38.93	38.99	38.81
USDT_OMNI	+16.47%	36.59	39.69	32.91
USDT_TRX	-1.78%	72.11	73.34	71.78
PAX	-0.21%	39.90	40.29	39.63
DAI	+0.57%	147.33	148.72	145.83
USDC	-0.41%	113.20	113.83	112.35
BUSD	-0.13%	73.48	73.88	72.75
GUSD	-9.65%	24.59	26.62	23.72

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	-5.47%	1,039,453	1,144,443	961,106
ETH	+1.02%	432,921	452,905	412,473
XRP	-51.98%	36,676	57,055	27,398
LINK	+90.89%	4,877	8,067	2,930
ADA	-30.01%	41,591	52,096	32,316
CRO	+58.54%	581	964	419
LTC	-8.94%	228,268	247,686	218,300
UNI	-25.56%	995	1,303	837
BCH	-49.40%	67,430	136,967	31,423
FTT	+82.61%	125	210	84

TRANSACTION COUNT

Count of transactions

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+42.64%	529,335	704,138	410,238
ETH	+2.00%	1,060,321	1,104,674	1,013,882
XRP	-14.92%	1,074,897	1,190,755	937,426
LINK	+79.82%	6,977	11,095	3,818
ADA	-27.09%	60,008	73,718	50,080
CRO	+55.71%	761	1,464	483
LTC	-5.33%	116,751	121,290	111,558
UNI	-46.86%	1,486	2,433	1,030
BCH	-67.26%	44,317	110,465	12,339
FTT	+129.82%	194	393	90

ADDRESSES \geq \$1

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+1.47%	41,868,987	42,163,868	41,552,655
ETH	+1.71%	62,171,678	62,510,328	61,456,906
XRP	+0.17%	4,848,355	4,852,798	4,844,384
LINK	+2.21%	548,856	556,291	544,286
ADA	+1.56%	3,646,927	3,679,309	3,617,909
CRO	+0.90%	152,522	153,251	151,812
LTC	+1.50%	2,399,932	2,414,934	2,379,270
UNI	+1.03%	291,117	292,978	289,985
ВСН	+0.69%	4,599,437	4,613,617	4,582,215
FTT	+0.69%	21,990	22,194	21,851

FREE FLOAT SUPPLY

Sum of native units readily available to trade in open markets

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	-0.01%	13,732,482	13,734,418	13,730,918
ETH	-0.08%	109,569,780	109,603,982	109,507,525
XRP	+0.13%	47,362,082,381	47,397,262,981	47,335,510,690
LINK	+0.00%	545,150,374	545,153,357	545,145,118
ADA	+0.08%	30,871,296,768	30,889,192,407	30,861,991,563
CRO	-6.91%	9,915,321,576	10,189,887,046	9,485,969,210
LTC	+0.10%	62,409,448	62,461,801	62,397,030
UNI	+0.01%	258,705,749	258,716,922	258,698,986
BCH	+0.02%	13,176,393	13,177,523	13,174,524
FTT	+0.00%	328,895,104	328,895,104	328,895,104

TRANSFER VALUE, ADJUSTED

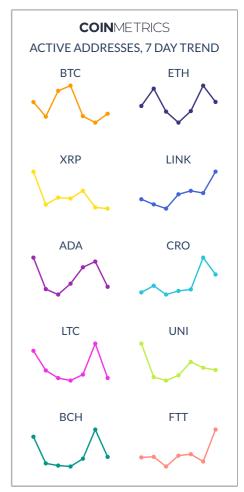
USD value of the sum native units transferred removing noise

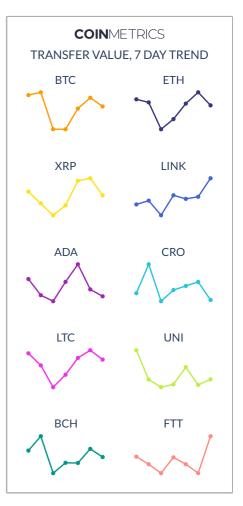
ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	-16.83%	4,230,146,827	5,486,593,741	2,596,552,679
ETH	-10.32%	3,209,315,720	4,161,377,742	1,819,081,149
XRP	-8.14%	631,117,661	902,520,581	326,753,583
LINK	+122.06%	202,923,983	352,846,968	78,780,819
ADA	-20.53%	7,610,468,274	9,856,122,084	6,166,781,559
CRO	-81.06%	35,231,306	97,533,409	872,957
LTC	-5.59%	92,383,427	104,972,105	71,312,527
UNI	-61.03%	29,418,802	64,311,629	14,454,646
BCH	-14.31%	32,306,460	48,294,248	18,356,678
FTT	+77.47%	4,223,259	8,864,247	1,863,870

ADDRESSES \geq \$1M

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

ASSET	7D CHANGE	7D AVERAGE	7D MAX	7D MIN
BTC	+1.14%	80,307	80,986	79,936
ETH	+3.59%	10,270	10,405	10,013
XRP	+9.31%	1,380	1,470	1,310
LINK	+23.90%	659	757	611
ADA	+12.66%	939	992	877
CRO	+17.24%	32	35	29
LTC	+3.55%	463	475	451
UNI	+6.52%	281	294	276
ВСН	+5.71%	359	370	350
FTT	-12.50%	14	16	13
FTT	-12.50%	14	16	13





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. <u>More information</u> 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[™], 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 on Coin Metrics Indexes</u>.

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 11/5/2023 constituent markets in the CMBI Bitcoin were Binance.US, Bitstamp, Bittrex, Coinbase, Gemini, itBit and Kraken. <u>More information</u> 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 11/5/2023 constituent markets in the CMBI Ethereum were Binance.US, Bitstamp, Bittrex, Coinbase, Gemini, itBit and Kraken. <u>More information on Coin Metrics Indexes</u>.

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 on Coin Metrics Indexes</u>.

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. <u>More information on Coin Metrics Indexes</u>.

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. <u>More information on Coin Metrics Indexes</u>.

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. <u>More information</u> 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.

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. <u>More information</u> 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. <u>More information</u> 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.

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.

MEMPOOL SIZE VS. FEE RATES

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

BTC RECOMMENDED FEE RATE

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

BTC FEE TRENDS

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

TRANSACTION COUNT PER BLOCK

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

ETH GAS PRICES

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

ETH FEE TRENDS

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

NVT RATIO

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

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

ACTIVE ADDRESSES

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

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

FREE FLOAT SUPPLY

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

TRANSACTION COUNT

See prior explanation.

TRANSFER VALUE, ADJUSTED

See prior explanation.

ADDRESSES WITH ≥ \$1

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

ADDRESSES WITH ≥ \$1M

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

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