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Digital Asset Market Summary

- The US government hit the debt ceiling last week at \$31.4T dollars, and as the previous 22 times since 1997, a deal will be done, most likely in the 11th hour. Adding more debt to record levels and at higher interest rates increases the probability of a loss of confidence and default, at least in the form of higher inflation levels through continued money printing. Bitcoin, a hard-capped asset, and other scarce assets, will protect against continued declining purchasing power from par.
- Amid a global bear market, Bitcoin's hash-rate and difficulty have hit their highest levels, meaning Bitcoin is more secure than ever. A brutal December chopping between \$16-17k and a 31% price increase to \$21k have enticed struggling miners to turn their machines back on with the hope of reaping the rewards of new Bitcoin. However, this positive price action may not spell the end of 2022's miner capitulation.
- According to the Bitzlato Order by the Department of The Treasury, the purpose of the FinCen order was to combat "Russian illicit finance" via an exchange called Bitzlato. The Treasury and FinCen gave itself "alternative special measures" to "prohibit the transmission of funds" by "domestic" and "covered institutions" as the only "adequate way to address the risks" of a peer-to-peer system. This approach takes the place of "imposing conditions" on the transmission of funds because "the value of any legitimate activity it may conduct is outweighed by the significant proportion of illicit financial activity identified and its lack of mandatory KYC". Repercussions of violating the order include "civil" and "criminal" penalties.

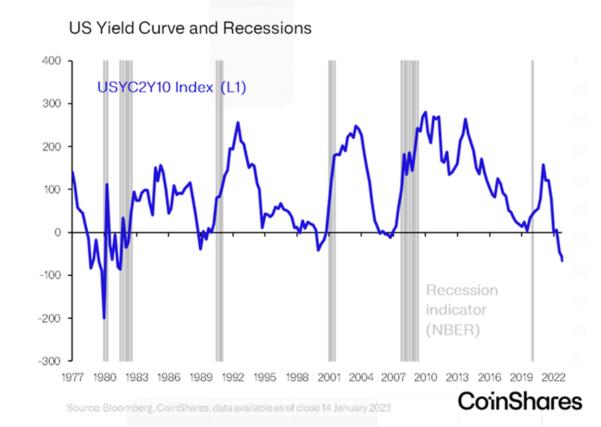
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2023 Regulations Outlook

- 2023 will very likely bring the backlash, at least from a regulatory perspective, from billions of dollars lost of retail and client money. We expect heightened scrutiny for the entire industry, driven by increasingly emboldened regulators keen to ensure governance over an industry that has largely escaped regulatory scrutiny for over a decade.
- Expect the finalisation of MiCA, in the EU, in Q1 2023, with regards to establishing a comprehensive and transparent regulatory regime. Steady implementation should follow from both member states as they pass the Directive into domestic law and for firms that will find themselves subject to a wide range of regulatory obligations.
- We also expect the EU to monitor market developments with an eye to ensuring that MiCA addresses any possible eventualities (i.e., loopholes). We think member states will focus on retail intermediaries, especially those who may try to access the market from unregulated third countries via reverse solicitation. Retail marketing efforts are likely to be heavily scrutinised and held to a standard similar to the marketing of financial instruments.
- In the United States, bipartisan support for a new legislative regime governing digital assets looks unlikely in the near future. This outlook arises from recent elections and the assertion of power by the right-wing of an already right of centre Republican party in the House of Representatives.
- More aggressive actions against unregistered security offerings by the SEC and market manipulation suits by the CFTC will continue and be of note as those organisations will use all enforcement tools available.

A Year of Reckoning for Central Banks

— A predicted recession in 2023 by the bond market may put downward pressure on digital assets, especially in the first half. However, as monetary policy reverses in H2 2023, we expect the correlation between risk assets such as equities and digital assets to degrade, supporting the thesis that Bitcoin is a good portfolio diversifier. Its unique monetary properties make it an asset that responds to interest rates differently to those such as equities that are based on corporate margins.

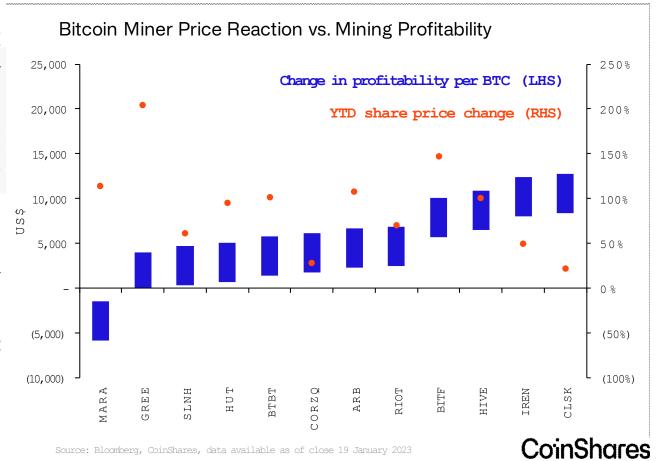


Blockchain Equities

This week we analyse the impact that of bitcoin's strong start this year (+27% YTD) is having in mining stocks. We would expect that the more distressed, or less profitable miners would have a stronger reaction to improving mining economics.

The chart on the right shows the change in gross mining profit per bitcoin between 31 Dec and 19 Jan (using Q3 2022 financials). Marathon remains in the red, while Greenidge has just crossed into the black, which has been received with a strong price reaction. On the opposite end of the spectrum, CleanSpark, a low cost producer has had a more muted reaction.

If the bitcoin price sees some support at current levels, share prices could benefit not only from improved economics, but also from reduced discounts as their financials gradually recover.

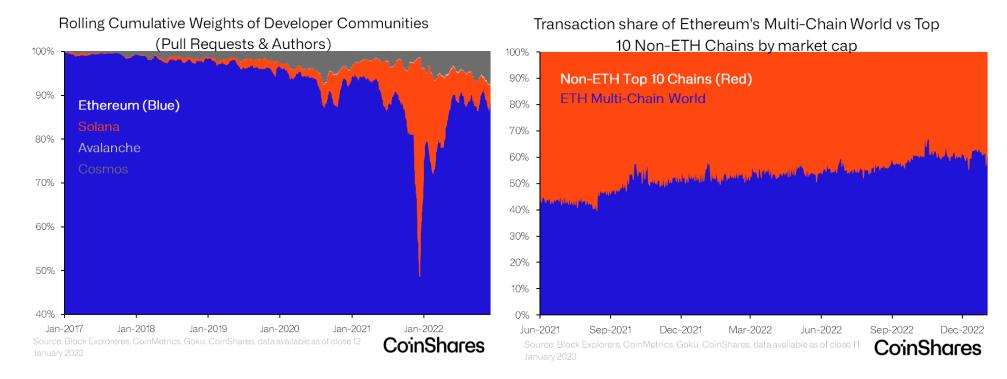


Shift from Layer 1 to Layer 2

- 2022 marked the 5th year in a row that blockchains dubbed "Ethereum Killers" failed to kill Ethereum. This is where Layer-2s enter the picture, think of them as data compression solutions. Users interact with a Layer-2 blockchain, and their transactions are bundled into one transaction, then posted on the Ethereum Layer-1 for verification.
- 2023 is shaping up to be the year of Layer-2s, for years Ethereum has been struggling to scale effectively while preserving decentralisation and security and Layer-2s have seemingly solved this trilemma. With cheap and fast transactions, and improved economics, the differentiators of competing Layer-1s arguably diminish.
- Layer-2s have caught up to Ethereum and handle around 1 million transactions per day, but we expect Layer-2s to continue their climb and handle more than double Ethereum's transactions by the end of the year.
- From a Decentralised Finance (DeFi) view, Layer-2s already make up 2 of the top 10 chains when measured by Total Value Locked (TVL). Arbitrum sits in 4th at \$1bn with Optimism in 7th at \$500m. We foresee at least one other layer-2 joining the top 10 at some point during the year (TVL >\$200m).
- Unsurprisingly, there are "layer-2s" being built on other networks as well, such as Bitcoin's Lightning network, Nitro on Solana, as well as other efforts on the Tezos, Cardano and Near blockchains. However, with a first-mover advantage and the most social capital, these advancements in scaling should help the Ethereum ecosystem prepare for the next wave of adoption and regain some of its lost market share.

Ethereum's Multi-Chain World

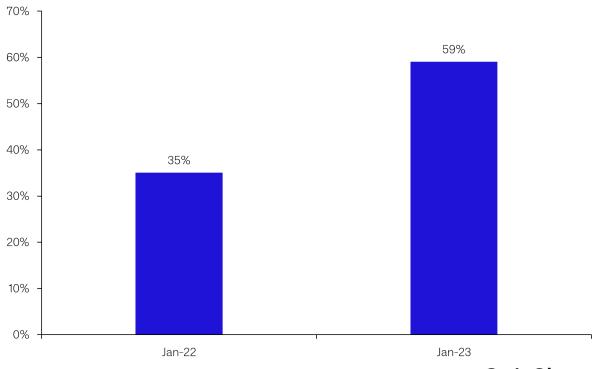
— While the noise may quieten, especially amongst the lower market cap tokens, developer communities are likely to stay thin, a lingering buzz may continue amongst the larger Layer-1s as innovation will not cease to occur. The signal shows, however, that consolidation and convergence towards the Ethereum and its Layer-2s ecosystem are the lines of direction for the rest of 2023.



Temporary Consolidation within DeFi

— The largest 5 DeFi protocols constitute 59% of all TVL vs 35% this time last year. Trust in newer applications has waned as hacks, scams and poor risk management among smaller DeFi protocols proliferated throughout 2022. This has led to a consolidation of value as riskier protocols are shunned in favour of their tried and tested peers.

Market Share of top 5 DeFi Protocols by TVL



Full report here.

Source: DeFiLlama CoinShares, data available as of close 17 January 2023

CoinShares

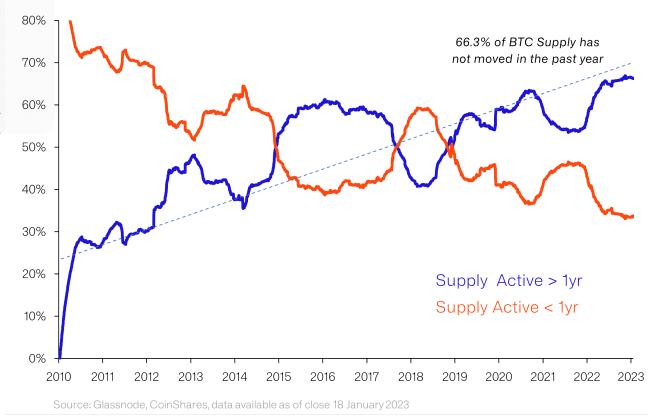
Bitcoin Market Fundamentals

Despite the quick start for bitcoin's price in 2023, long-term BTC holders appear unphased, choosing to continue saving their holdings amidst the recent upswing.

The amount of bitcoins that remain unspent for over a year has progressed along an upwards trajectory over time, now holding steady above 66% of the available supply, totalling 12.76m BTC.

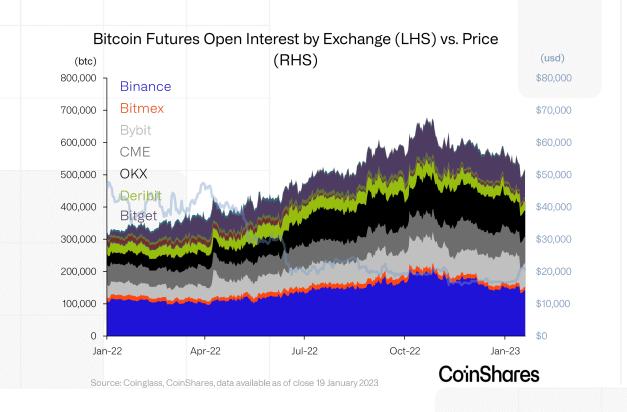
This supports the thesis of owners increasingly holding bitcoin as a long-term store of value rather than a short-term object of speculation. We find this is an encouraging trend to follow from a fundamental valuation perspective, as is maturation events that impact long-term demand.

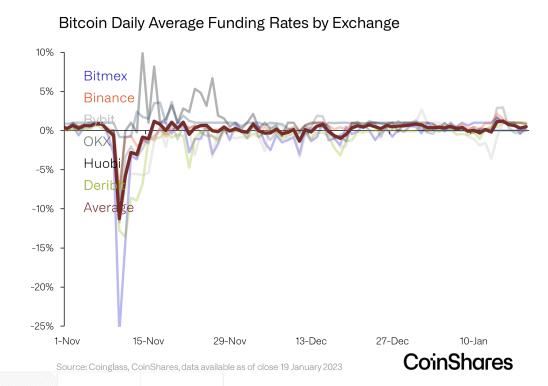
BTC Continues to be Restricted by Long Term Holders



Bitcoin Futures Overview

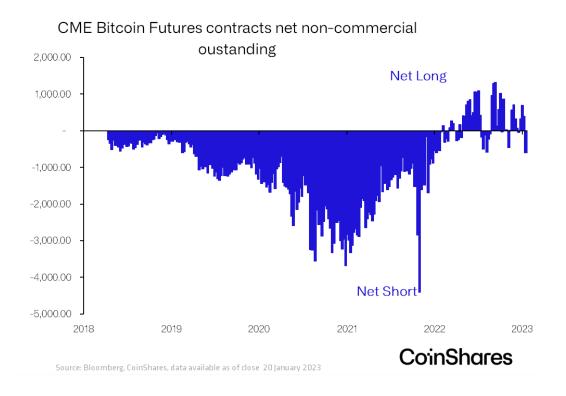
Over \$1 billion worth of short trades were liquidated as bitcoin's price appreciated roughly 26% these past two weeks.
Meanwhile, open interest increased by \$1.45 billion, funding rates remained modestly positive, and the CME futures basis moved into positive territory, together indicating that the sentiment among derivatives traders may be slightly improving.

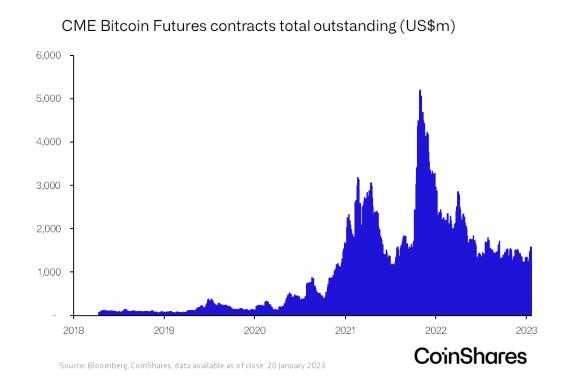




CFTC Bitcoin Futures

— In the CME, futures positions have swung into a net short position following the recent price rally

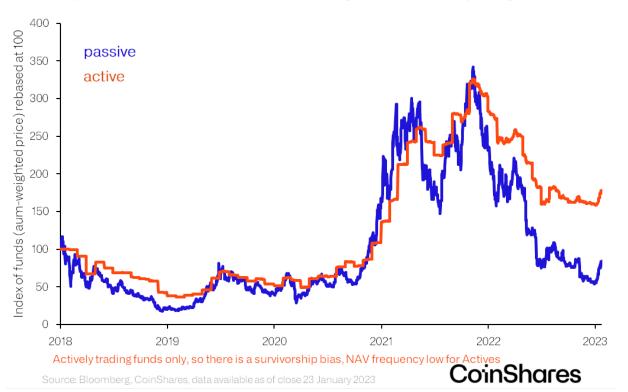




Active vs Passive Crypto Investors

— The recent rally saw passives massively outperform actively managed funds. Passives are underperforming active in aggregate in the longer term, although this data can be misleading, if only 2 of the 29 active funds are removed, they underperform passives.

Digital Asset Active vs Passive funds (price, aum weighted)



Digital Asset fund Performance & Risk								
CoinShares	Passive	Active						
1 m	51.2%	12.1%						
3 m	-0.5%	5.4%						
6 m	- 17 . 1%	-1.9%						
1y	-51%	-27%						
2Y	-48%	31%						
annualised returns (since 2018)	12%	20%						
# actively trading	182	29						
% actively trading (January)	100%	93%						
assets under management (US\$m)	26 , 943	1 , 784						
Average annual fee (%)	1.45	1.73						
max drawdown	84.5%	63.7%						
volatility	66.6%	38.1%						
return dispersion (weighted)	22.1%	18.1%						
sharpe	0.17	0.51						

Source: Bloomberg, CoinShares as of close 23 Jan 2023

Digital Asset Fund Flows

The rally has revealed a very polarised investor, US bearish, Europe bullish

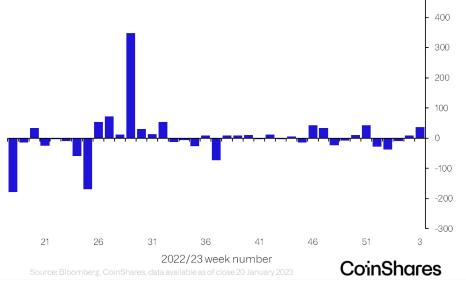
Digital asset investment products saw US\$37m inflows last week, although this was predominantly into short investment products (68%).

Regionally, opinion is very polarised. Inflows were seen in Europe, most notably Germany and Switzerland with US\$14m and US\$10m respectively.

Hong Kong saw outflows from long investment products, while the 95% of the inflows into the US were into short-Bitcoin products.

Full report <u>here</u>

Weekly Crypto Asset Flows (US\$m)



Flows by Provider	(US\$m)			
	Week	MTD	YTD	
CoinShares	flows	flows	flows	AUM
Grayscale	-	-	-	19,536
CoinShares XBT*	-1,2	-2.5	- 2	1,401
CoinShares Physical*	1.5	3.5	3	384
21Shares	7.8	8.6	9	1,022
ProShares	26.5	24.5	24	840
Purpose	-1,2	-0.5	-0	716
3iQ	0.6	0.5	0	613
CI Investments	0.3	1.5	2	518
Other	3.0	1,2	1	3,698
Total	37.3	36.8	37	28,727

Total	37.3	36.8	37	28,727
Other	2.5	2.9	3	150
Polygon	0.1	0.2	0.2	28
XRP	0.6	0.3	0.3	37
Solana	0.1	1.3	1.3	57
Tron	0.3	-0.0	-0.0	59
Short Bitcoin	25.5	25.2	25.2	138
Litecoin	-	0.2	0.2	144
Binance	0.1	0.3	0.3	303
Multi-asset	-1.9	-9.6	-9.6	2,366
Ethereum	4.2	6.8	6.8	7,161
Bitcoin	5.7	9.2	9.2	18,284
CoinShares	flows	flows	flows	AUM
0 : 0	Week	MTD	YTD	
Flows by Asset (U	sşm)			

Source: Bloomberg, CoinShares, data available as at 20 Jan 202

^{*} Independent daily attestation by Armanino

Flows by Exchange Country (US\$m)										
0 . 0	Week	MTD	YTD							
CoinShares	flows	flows	flows	AUM						
Australia	-	-	-	8						
Brazil	-3.4	-10.7	-10.7	287						
Canada	2.2	11.8	11.8	2,063						
France	0.1	0.2	0.2	7						
Germany	14.1	17.7	17.7	1,182						
Sweden	-1,2	-2.5	-2.5	1,401						
Switzerland	10.3	7.3	7.3	1,309						
United States	26.7	24.5	24.5	21,166						
Other	-11.4	-11.4	-11.4	1,303						
Total	37.3	36.8	36.8	28,727						

Market Correlations

BTC Correlation to Equities has declined over the last month at 60%.

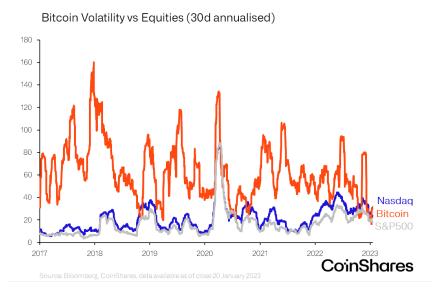
Its correlation to all assets classes is rising as it becomes more widely used.

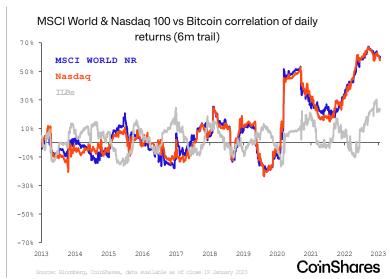
After the recent rally, Bitcoin 30d price volatility has risen to 31%, above the Nasdaq 100 which is at 23%. Bitcoins volatility continues to trend downwards.

BIC Correlation to va	rious equity	indices	in varied	l price sh	ock event	cs (since 2	2019)	
CoinShares	Inflation-	MSCI			NASDAQ	10yr		DXY
Comonares	linked Bonds	World	S&P 500	Gold	100	Treasuries	CRB	Index
All periods	2 4 %	36%	3 4 %	18%	33%	4 %	18%	-20%
3x stdev event	48%	67%	61%	38%	71%	28%	20%	-13%
3x stdev event + momentum	18%	38%	36%	17%	74%	42%	-21%	-23%
3x stdev event - momentum	55%	70%	65%	57%	69%	21%	21%	3 4 %

Source: Bloomberg, CoinShares, data available as of close 20 January 2023

⁻ MSCI World total return, Bloomberg Total Return 7-10 year bond, XBTUSD, CRB (commodities), XAU, SOCL & NDX indices are used





Bitcoin in a Portfolio

— A portfolio weighting of 4% achieves a Sharpe ratio of 1.19, a correlation fall of 7.3% and an increase in maximum drawdown of 1.5% when compared to a 60/40 equity/bond portfolio.

Various asset Classes	Performance in a b	alanced	portfolio	(since O	ct 2015)			
	60%/40%		4.0%					
CoinShares	benchmark	4.0%	Bitcoin (no	4.0%	4.0%	4.0%	4.0%	4.0%
	(Equities/Bonds)	Bitcoin	rebalancing)	Ethereum	Gold	HFRX	CRB	REITs
annualised returns	6.9%	14.4%	37.4%	16.5%	7.1%	6.8%	6.9%	7.0%
max drawdown	21.4%	22.9%	67.2%	22.4%	20.9%	20.8%	20.7%	21.7%
volatility	9.3%	10.4%	42.1%	10.5%	9.1%	9.1%	9.0%	9.6%
correlation	-	92.7%	37.5%	90.8%	99.8%	100.0%	100.0%	99.8%
tracking error	-	3.9%	39.4%	4.4%	0.6%	0.3%	0.4%	0.6%
beta	_	0.83	0.09	0.81	1.03	1.03	1.04	0.97
Sharpe (vs cash)	0.52	1.19	0.84	1.38	0.56	0.52	0.54	0.52
Sortino	-	1.50	1.08	1.74	0.68	0.64	0.66	0.63

Source: Bloomberg, CoinShares, data available as of close 20 January 2023

We have written a detailed portfolio analysis <u>here</u>

⁻ Data derived from a balanced 60/40 equity/bond portfolio, with an equal weight detraction to allocate to Bitcoin, Gold, HFRX Global, CRB, REITs Top 5 Crypto

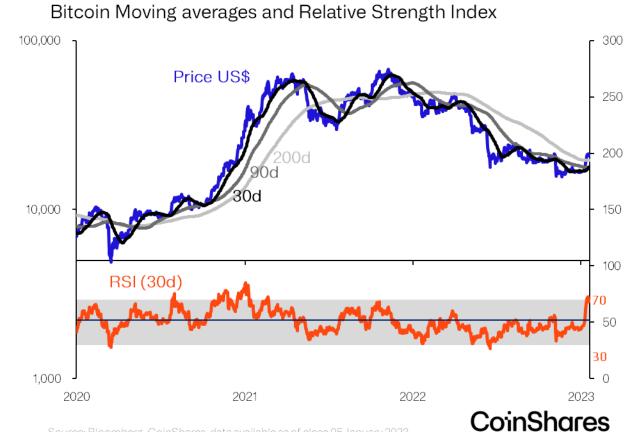
⁻ MSCI World total return, Bloomberg Total Return 7-10 year bond, XBTUSD, Gold, HFRXGL Index, CRB, REIT and MVIS Digital Assets indices are used

⁻ Rebalanced per calendar quarter

Technical/Value Indicators

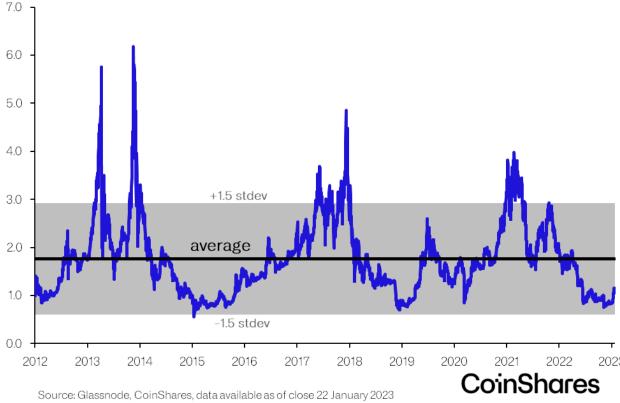
— The recent rally suggests Bitcoin is in overbought territory with the RSI at 69.

 MVRV Value indicator continues to highlight multi-year low valuations. More research on this indicator is available here



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Bitcoin Market Value / Realised Value (MVRV)





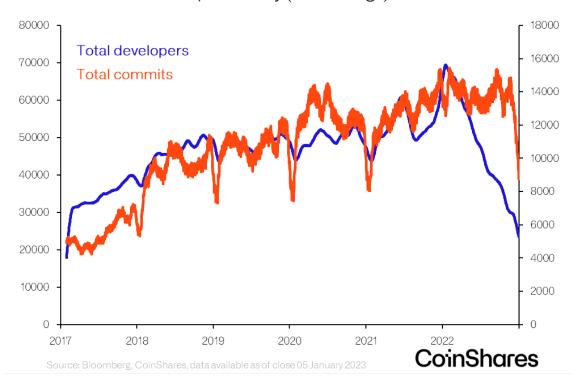
GitHub Development Landscape

— Data shows the developer activity on GitHub, which has seen a dramatic decline in active developers in 2022, however, the declines are very different for each token/ecosystem and declines in commits and pull requests are much less. There is also a significant seasonal decline every December.

Ecosystem summar	y (30d av	erage)				
CoinShares	# of Unique	180d	# af	180d	# of Pull	180d
Comondies	Developers	change %	Commits	change %	Requests	change %
ethereum	2,057.2	-43%	433	-45%	129	-32%
truffle	1,580.8	-38%	308	-44%	111	-11%
polkadot	1,138.6	-48%	1,264	105%	91	-17%
cosmos	1,024.7	-23%	176	-40%	55	-1%
general	992.9	-63%	240	-43%	64	8 %
gitcoin-grants	738.6	-50%	241	-30%	56	-27%
solana	581.2	-62%	124	-60%	46	-32%
ethereum-consensus	566.5	-55%	126	-48%	49	-26%
the-graph	562.5	-58%	139	-39%	33	-22%
bitcoin	475.7	-62%	134	-50%	42	-23%
œlo	437.1	-55%	87	-62%	26	-6%
near	415.7	-55%	341	16%	23	-32%
ethereum-execution	398.1	-23%	69	-59%	24	-33%
cardano	377.2	-43%	116	-47%	24	-21%
web3-js	373.7	-28%	67	-50%	25	-16%
mina-protocol	296.1	-19%	71	-51%	17	-24%
tendermint	295.6	-69%	47	-53%	18	-4%
internet-computer	259.1	-59%	81	-60%	22	-32%
tezos	255.5	-35%	57	-49%	8	-36%
ethereum-virtual-machine	242.3	-13%	51	-44%	16	-3%
Total	23,974.6	-49%	9,944	-27%	2,126	-16%

Source: ElectricCapital, CoinShares, data available as at 31 December 2022

GitHub total Developer Activity (30d average)





GitHub Development Charts

Top Rising Develope	ers (30d	average)		
CoinShares	# of	180d	# of	180d
Colliditates	developers	change %	commits	change %
bitgo	50.7	52%	8	-24%
webaverse	83.0	38%	12	-71%
aptos	119.0	31%	32	-16%
osmosis	179.4	22%	25	-38%
lisk	39.9	12%	23	-56%
aetemity	35.4	12%	10	-40%
balancer	68.1	11%	20	-32%
threefold-token	70.4	4 %	22	-29%
dfinity-iau	138.5	3 %	49	-8%
sui-network	76.6	0 %	23	169%
sxrp	35.1	-2%	14	-69%
synthetix	35.1	-2%	14	-69%
defillama	178.9	-3%	70	25%
zero-knowledge-cryptogra	146.5	-7%	62	-18%
xmp	190.5	-8%	38	-52%
Total	23,974.6	-49%	9,944	-27%

Source: ElectricCapital, CoinShares, data available as at 31 December 2022

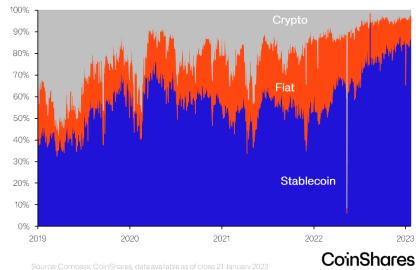
Top Declining Developers (30d average)								
CoinShares	# of	180d	# of	180d				
Comonures	developers	change %	commits	change %				
dextf-protocol	80.7	-88%	28	-54%				
status	93.0	-86%	18	-32%				
embark	107.8	-85%	32	-38%				
zenlink	35.4	-82%	2	-93%				
groestlcoin	73.3	-81%	15	-53%				
mlabs	40.2	-74%	14	-74%				
rainbow	43.7	-70%	3	-64%				
iota	35.3	-70%	31	-20%				
tendermint	295.6	-69%	47	-53%				
flow	146.9	-66%	39	-70%				
flow	146.9	-66%	39	-70%				
oasis	138.1	-65%	23	-76%				
general	992.9	-63%	240	-43%				
solana	581.2	-62%	124	-60%				
bitcoin	475.7	-62%	134	-50%				
Total	23,974.6	-49%	9,944	-27%				

Source: ElectricCapital, CoinShares, data available as at 31 December 2022

Bitcoin Volumes

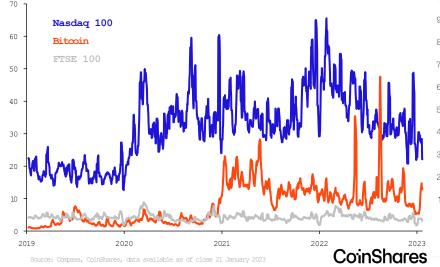
 Stablecoins dominate Bitcoin volumes, with the massive growth in popularity of Binance and BUSD.

Bitcoin trading volumes by category



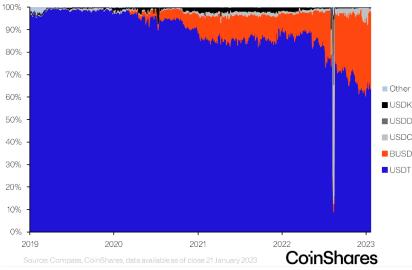
 Volumes in Bitcoin have recovered sharply over the last week and are now averaging US\$10.2bn per day so far this year

Trading volumes on trusted exchanges (7d DMA US\$bn)



 Stablecoin Tether still dominates but is rapidly losing market share to BUSD.

Stablecoin Market Share of Bitcoin volumes



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