

Digital Asset Market Summary

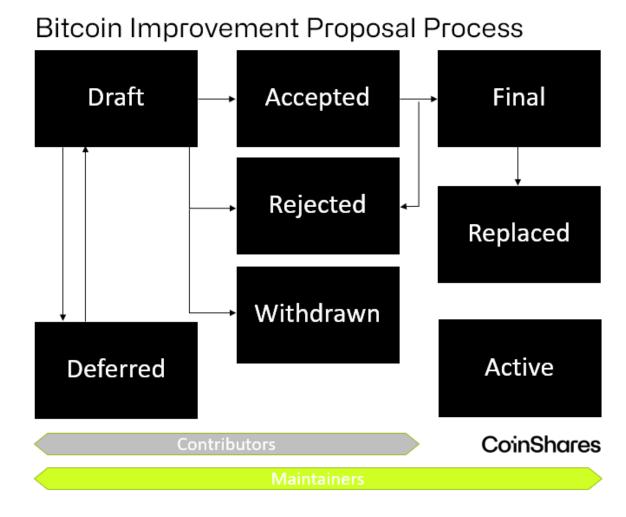
- Over the past few weeks, there has been a significant amount of regulatory action from various US regulatory bodies, with the Securities and Exchange Commission (SEC) leading the charge. Paxos and Kraken have already felt the brunt of this regulatory crackdown. The SEC has taken enforcement action against both companies, forcing them to sever ties with Binance, their stablecoin issuer, and settle a \$30 million lawsuit over Staking-as-a-Service. Other institutions should take note and revisit their offerings to avoid getting caught in the crossfire. It's important to remember that regulators have a wide range of tools at their disposal, beyond just the well-known Howey Test. The 1993 Securities Act has 22 different laws, each providing insight into the interpretive framework that regulators can use to enforce their will.
- A unseasonably warm January led to an unexpected boost to employment and retail sales, with 12 out of the 14 interest sensitive data points for January coming in above expectations. January is typically the month with the most variable economic output so extrapolating the rest of the year based on January, as some investors are, would be a mistake. We continue to expect economic weakness throughout the year with the FED likely to finalise their interest rate hiking cycle in March. We have already seen the US Dollar peak, as we see it as still over valued on many measures, further downside it likely, providing further support for Bitcoin.
- We have recently written about the misconception that Bitcoin is controlled by 6 developers, while also looking into Bitcoin Inscriptions (NFTs). Other points worth mentioning in our bi-weekly are the impact of recent regulations on blockchain equities and how the USDT (Tether) stablecoin has increased its market share dramatically as a consequence.

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Bitcoin is Not Controlled by 6 Developers

- Following recent media hype, we felt it was necessary to cover the key process involved in updating the Bitcoin software to dispel the myth that it is controlled by 6 individuals.
- One major point of confusion surrounding Bitcoin Core is how changes to its code are made. While there is a group of project "maintainers" with commit access, it's a misconception that only they can make changes to the code. In reality, the merging of changes is simply the last step of a long process.
- Bitcoin Core is a collaborative effort that involves a diverse group of developers and contributors from around the world, not just the small group of project maintainers. The peer review process for changes to code is extensive and can take weeks or even years, ensuring that all changes to the code are thoroughly vetted and safe. The success and future of Bitcoin depend on the collective efforts of the entire community, and its continued growth and development will rely on its adoption and use by people and businesses around the world.

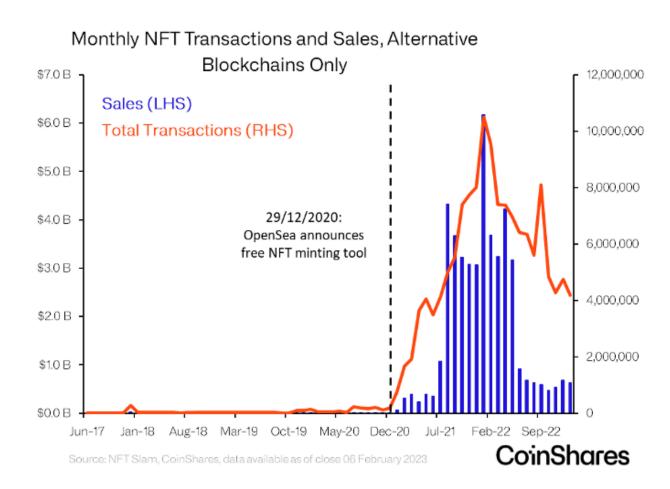
Full report <u>here</u>.



Bitcoin's NFTs called "Inscriptions"

- Inscriptions may become a preferred reference source for NFTs because of the enhanced security of such NFTs by anchoring the media file itself on a much more secure database (bitcoin's blockchain) than is currently possible on other chains.
- In the case inscriptions are successful in bringing a new wave of investors to the Bitcoin community, there is potential for many to also discover the properties and potential of bitcoin as a monetary investment. In other words, investors may come for the intriguing art, but stay for the superior money.
- We find inscriptions have the potential to increase the utility of bitcoin in such a way that increases the number of susceptible hosts, who are now more likely to be infected — or, adopt bitcoin — than they previously were.

Read the report <u>here</u>



Bitcoin Fundamentals

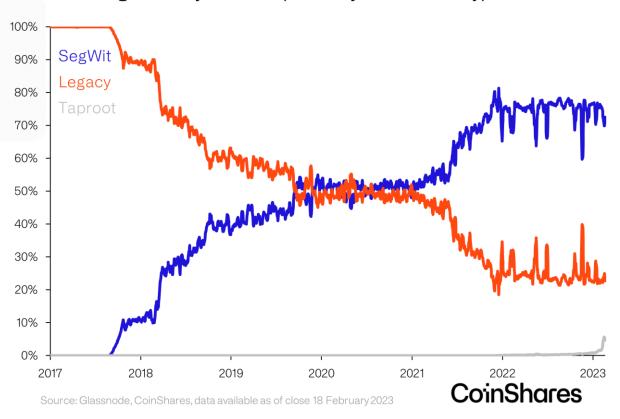
Since 2017, two optional upgrades to Bitcoin software have enabled new types of transactions available to users: Segregated Witness (SegWit) and <u>Taproot</u>.

These formats tend to be more data efficient when logging transactions to the blockchain, while also offering more advanced capabilities for developers to build more utility within the Bitcoin ecosystem, such as Lightning and Ordinals.

As a result, the spending behaviour of users has changed significantly, where now roughly 80% of daily transactions are using more advanced types.

To learn more about projects that leverage these types of transactions, read our reports on <u>Lightning</u>, <u>Taro</u>, and <u>Ordinals</u>.

Percentage of Daily Bitcoin Spends by Transaction Type



Blockchain Equities

Earlier this month, the SEC took action against the cryptocurrency exchange Kraken to stop its staking activities in the US. In addition, Paxos, the issuer of the Binance USD and the Pax dollar stablecoins, were also subject to regulatory scrutiny by the New York Department of Financial Services.

PayPal also paused the launch of their stablecoin along with Silvergate who pulled its stablecoin release in autumn 2022 and announced a \$196m writedown in relation to its stablecoin project, Diem, in January 2023.

Brian Armstrong of Coinbase argued that rumours of banning staking in the US would be a missed opportunity in financial innovation and could lead to more offshore entities being set up like FTX. Staking revenue has been increasing as a percentage of total revenue for Coinbase as transaction based revenues have been declining. It's also a lucrative source of revenue as they are able to charge between 25-35% commission on customers staking their crypto assets.

Hong Kong are also planning to legalise cryptocurrency trading from June 2023 with further speculation of a HKD based stablecoin being launched. This fits into the narrative that staking is shifting away from the US market due to hostile conditions, and moving to regions where cryptocurrency adoption is more widely accepted. In light of this trend, companies who can adapt their strategy can benefit from staking, especially as the profitability margins can be high.



Digital Asset Fund Flows

US\$32m outflows, but rising prices push AuM to highest since August 2022

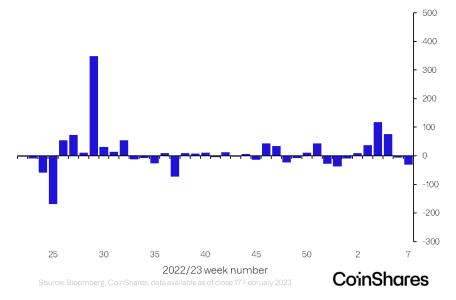
Digital asset investment products saw outflows totalling US\$32m last week, the largest since late December 2022. Mid-way through last week the outflows were much higher at US\$62m, but sentiment improved by Friday.

Bitcoin bore the brunt of the negative sentiment, seeing nearly US\$25m of outflows, while short-bitcoin investment products saw inflows of US\$3.7m.

Blockchain equities saw inflows totalling US\$9.6m last week and have seen 6 consecutive weeks of inflows.

Full report here

Weekly Crypto Asset Flows (US\$m)



Flows by Provider (US\$m)										
Opin Obanasa	Week	MTD	YTD							
CoinShares	flows	flows	flows	AUM						
Grayscale	-	-	-	21,346						
CoinShares XBT*	-0.0	-3.1	-4	1,560						
CoinShares Physical*	-11.6	7.3	33	458						
21Shares	2.8	-1.2	27	1,146						
ProShares	-0.8	4.5	77	951						
Purpose	0.5	4.4	3	790						
3iQ	-4.4	10.6	46	726						
CI Investments	-3.1	-6.0	1	544						
Other	-15.1	-21.4	8	4,006						
Total	-31.7	-4.9	191	31.528						

Flows by Asset (US\$m)										
CoinChasas	Week	MTD	YTD							
CoinShares	flows	flows	flows	AUM						
tcoin	-24.8	-5.1	158	20,556						
Ethereum	-7.2	-1.4	8	7,465						
Multi-asset	-2.3	-6.2	-23	2,499						
Binance	0.3	0.3	0	323						
Litecoin	-	-	0	164						
Short Bitcoin	3.7	4.1	38	135						
Tron	-	-	-0	67						
Solana	-	1.0	4	64						
Polygon	-0.8	-0.3	0	44						
KRP	0.3	0.3	0	36						
Other	-1.0	2.4	6	175						
Total	-31.7	-4.9	191	31,528						

Source: Bloomberg, CoinShares, data available as at 17 Feb 2023

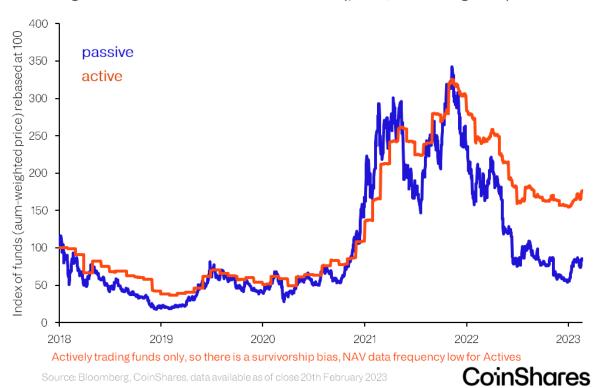
* Independent daily attestation by Armanino

Flows by Exchange Country (US\$m)									
CoinShares	Week	MTD	YTD						
Collisitates	flows	flows	flows	AUM					
Australia	-	-	-	9					
Brazil	-2.7	-6.4	-24	305					
Canada	-10.6	5.8	57	2,293					
France	0.0	0.6	1	9					
Germany	-23.1	-9.8	73	1,392					
Sweden	-0.0	-3.1	-4	1,560					
Switzerland	4.9	1.7	33	1,470					
United States	0.2	6.5	78	23,152					
Other	-0.3	-0.2	-24	1,338					
Total	-31.7	-4.9	191	31,528					

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)



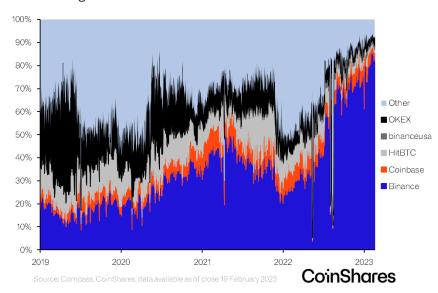
Digital Asset fund Performance & Risk							
CoinShares	Passive	Active					
1m	3.7%	3.3%					
3m	33.0%	12.8%					
6m	-3.7%	4.4%					
1y	-55%	-27%					
2Y	-54%	8%					
annualised returns (since 2018)	4%	16%					
# actively trading	174	29					
% actively trading (January)	100%	93%					
assets under management (US\$m)	29,684	1,844					
Average annual fee (%)	1.45	1.75					
max drawdown	84.5%	63.7%					
volatility	66.4%	37.8%					
return dispersion (weighted)	4.8%	1.4%					
sharpe	0.05	0.39					

Source: Bloomberg, CoinShares as of close 20 Feb 2023

Bitcoin Volumes

 On centralised exchanges, Binance's dominance continues to rise with an 80% market share.

Exchange Market Share of Bitcoin volumes



Volumes in Bitcoin ranged from US\$7bn

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

70

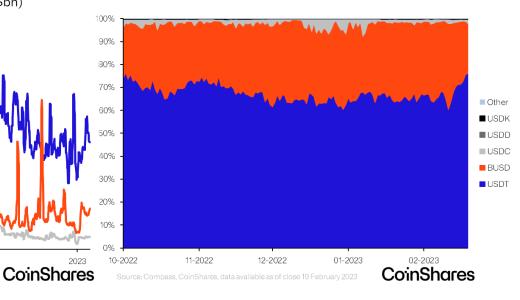
50

Nasdaq 100 Bitcoin

to US\$18bn over the last two weeks.

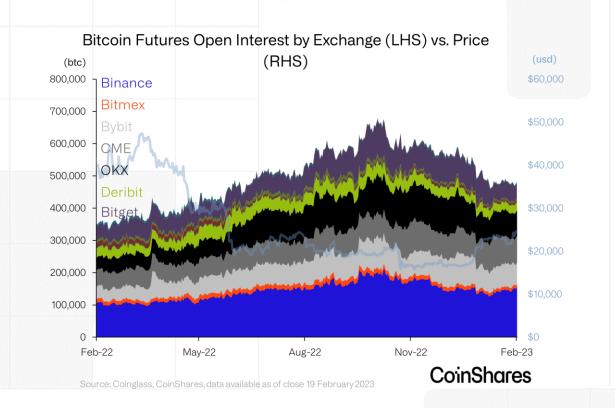
 USDT increased its market share from 70%. to 80% over the last week due to the regulatory crackdowns.

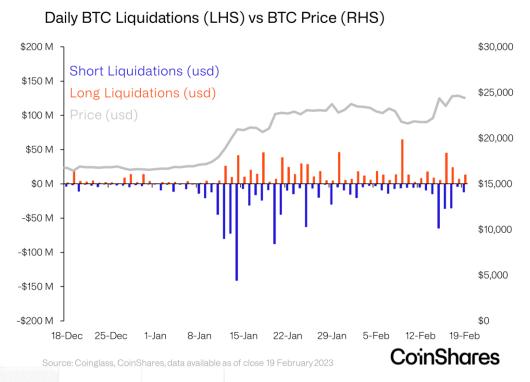
Stablecoin Market Share of Bitcoin volumes



Bitcoin Futures Overview

\$230 million worth of short trades were liquidated these past two weeks as bitcoin's price spiked to nearly \$25,000 per coin, appreciating by ~6.5%. The Bitcoin price has now quickly risen by 47% YTD. Meanwhile, futures open interest has remained relatively stable in terms of BTC, the CME futures basis has stayed in positive territory for over a month, and average funding rates on perpetual products across all exchange are in a neutral range. Overall, we are not seeing any major shifts in the Bitcoin derivatives market.

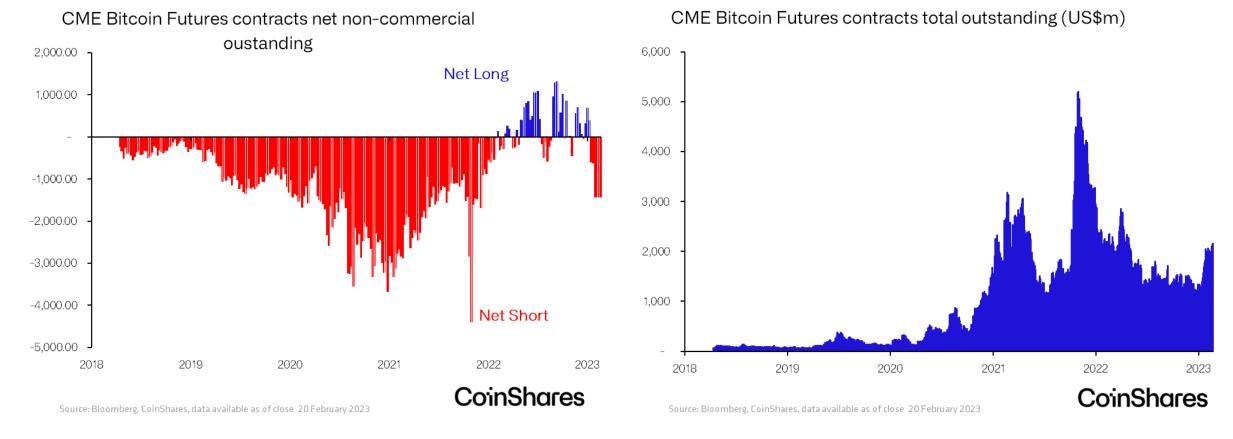




21/02/2023

CFTC Bitcoin Futures

 In the CME, futures positions remain in a net short position, we believe this isn't highlighting a bearish outlook, rather some investors are increasingly exploiting the arbitrage between spot and futures – as they have done in the past when sentiment turns bullish



Market Correlations

BTC 3-month Correlation to Equities fallen from its 69% peak to 46% today, its lowest point since March 2022.

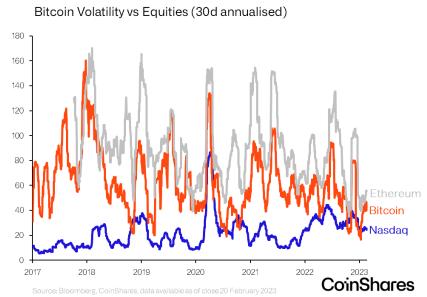
After the recent rally, Bitcoin 30d price volatility has risen to 43%, above the Nasdaq 100 which is at 23%.

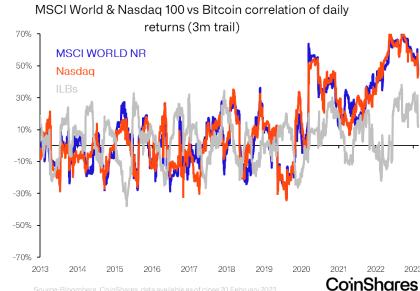
The inverse relationship with the USD has seen it appreciate recently as the USD declines.

BTC Correlation to various equity indices in varied price shock events (since 2019)								
CoinShares	Inflation-	MSCI			NASDAQ	10yr		DXY
Comonaco	linked Bonds	World	S&P 500	Gold	100	Treasuries	CRB	Index
All periods	24%	36%	34%	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%	34%

Source: Bloomberg, CoinShares, data available as of close 20 February 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 1.2, 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 balanced portfolio (since Oct 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	7.0%	14.5%	39.4%	16.5%	7.1%	6.8%	7.0%	7.1%
max drawdown	21.4%	22.9%	67.2%	22.4%	20.9%	20.8%	20.7%	21.7%
volatility	9.3%	10.4%	42.0%	10.5%	9.1%	9.0%	9.0%	9.6%
correlation	-	92.7%	37.5%	90.9%	99.8%	100.0%	100.0%	99.8%
tracking error	-	3.9%	39.3%	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	1.20	0.89	1.38	0.55	0.52	0.54	0.52
Sortino	-	1.51	1.15	1.75	0.67	0.64	0.66	0.63

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

⁻ 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

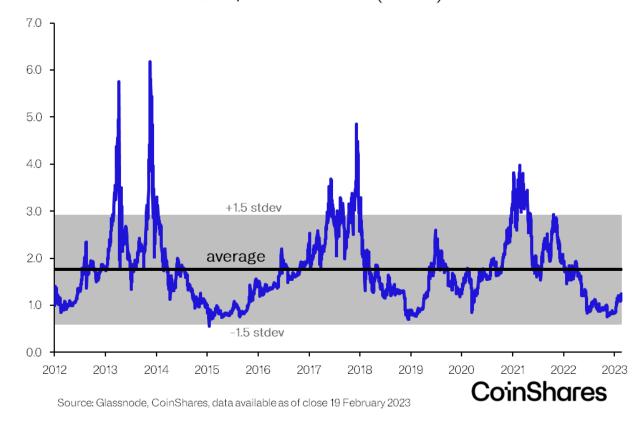
 Bitcoin's RSI has risen close to 70 again after the recent rally

Bitcoin Moving averages and Relative Strength Index



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

Bitcoin Market Value / Realised Value (MVRV)

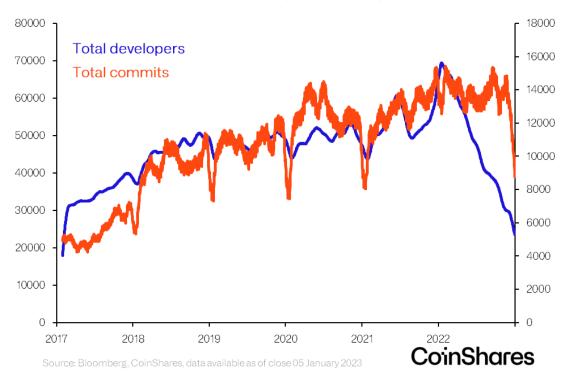


GitHub Development Landscape

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 summary (30d average)								
CoinShares	# of Unique	180d	# of	180d	# of Pull	180d		
	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%		
celo	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%		

GitHub total Developer Activity (30d average)



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

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GitHub Development Landscape

Top Rising Developers (30d average)									
CoinShares	# of	180d	# of	180d					
Comonardo	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%					
aeternity	35.4	12%	10	-40%					
balancer	68.1	11%	20	-32%					
threefold-token	70.4	4%	22	-29%					
dfinity-iou	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%					
xrp	190.5	-8%	38	-52%					
Total	23,974.6	-49%	9,944	-27%					

Top Declining Developers (30d average)								
CoinShares	# of	180d	# of	180d				
	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. <i>4</i>	-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

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