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CoinShares Bi-Weekly Digest

7th March 2023

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Digital Asset Market Summary

- CoinShares remains firmly of the view that January's numbers were boosted by the relatively warm weather and the unusual lack of snow, and that the February and March numbers will show that the underlying trend in final demand is flat, or worse. Last week, results for ISM Services dipped month-over-month. Case-Shiller Home Prices and Mortgage Applications both followed suit suggesting further downside going forward as supported by decreasing Consumer Confidence.
- But inflation has proven to be sticky. Broadly, we have had 5%+ inflation for 20 consecutive months, and recently, unit labor costs doubled expectations, ISM services employment index signals healthy job gains last month and ISM Services PMI points to robust service sector activity. Either the FED is forced to break the camels back or the road to 2% inflation will be long and bumpy.
- Historically, the Fed hasn't stayed at a peak terminal rate for very long. Data since the 1980s suggest the Fed has held steady after a hiking cycle for around seven months on average, and for less time during inflationary cycles. Monetary policy is increasingly more restrictive, but effects are often felt on a lagged timescale. This aligns with rising yields on expiring Fed Funds Futures contracts in mid-year which supports our thesis that the FED will then be forced to pivot around H2 2023, and risk assets such as Bitcoin will perform well. The US Dollar has also peaked, albeit still overvalued on many measures with further downside likely, which will provide support for Bitcoin over the coming months.
- In this report we begin to cover Shanghai, the Ethereum yield release event due end March/early April 2023. We also look into crypto crime, bitcoin fundamentals, fund flows, market volumes and how Binance is losing market share following recent regulatory crackdowns in the US.
- We have also finally completed our exhaustive work on crypto developers, covering over 5200 ecosystems, and find that while developer numbers have dropped dramatically over the last year, that the developer bases in the larger networks have been more resilient.
- Follow all our reports on Bloomberg <NH CIE> GO

Ethereum Unstaking - Shanghai

What are the different types of withdrawals?

Ethereum participants currently stake 32 ETH in order to run a validator and receive rewards. Withdrawals will allow validators to withdraw their ETH.

There are two types of withdrawals:

Partial withdrawals: Only the staking rewards are withdrawn (everything in excess of 32 ETH). These withdrawn rewards can be spent immediately. The user will continue to validate as expected.

Full withdrawals: The validator will exit and stop validating. The validator's entire balance (32 ETH principle and any rewards) is then unlocked and allowed to be spent after the exit and withdrawal mechanism is complete.

Partial withdrawals happen automatically once per week while a full withdrawal is only a manual process.

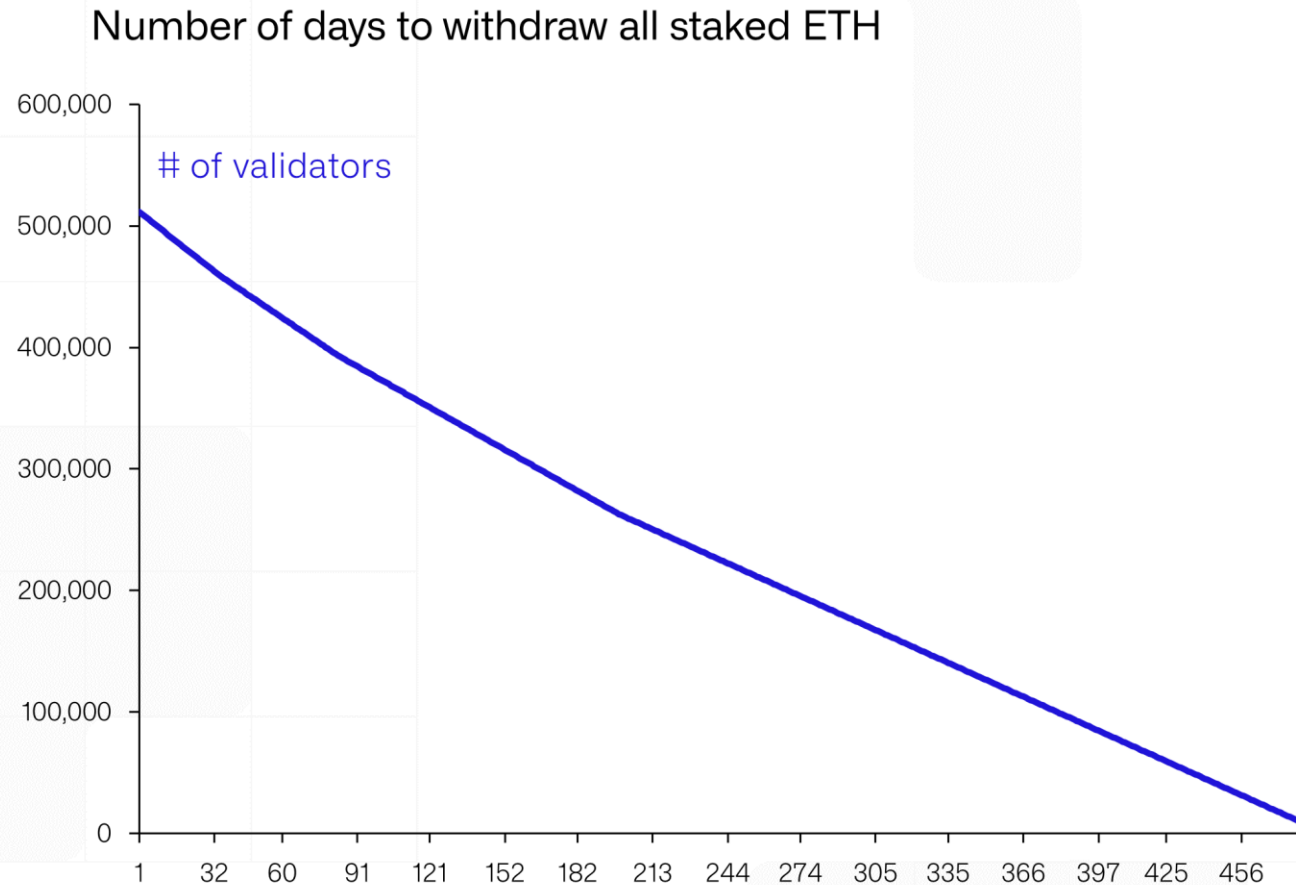
Ethereum Unstaking - Shanghai

What is the withdrawal process?

Partial withdrawals happen automatically each week, for full withdrawals, the process is longer. There are three phases:

1. Wait to be picked up by a validator (16 every 12 seconds or 115,2000 per day) so this will likely not be long.
2. Wait for your turn in the queue - depending on how many validators are on the Ethereum network (currently 530,000), a different number of full withdrawals is possible:
 - 458,752 validators, 7 validators per epoch or 1,575 validators/ 50,400 ETH per day.
 - 524,288 validators, 8 validators per epoch or 1,800 validators/ 57,600 ETH per day.
 - 589,824 validators, 9 validators per epoch or 2,025 validators/ 64,800 ETH per day.
3. Wait for the fixed protocol delay of ~27 hours (256 epochs)

How long would it take to withdraw all ETH?



It would take over one month for 10% of validators to withdraw their staked ETH and roughly three months for 25% to exit.

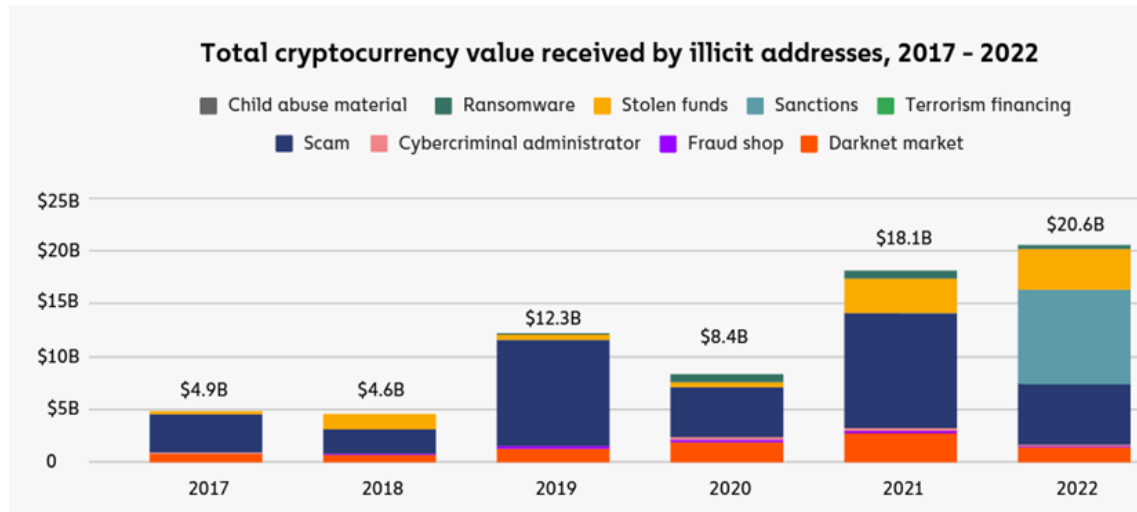
This delayed process prioritises the safety and security of the Ethereum network above all else.

Source: GlassNode, CoinShares, data available as of close 02 February 2023

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Quantifying Crypto Crime

- The amount of cryptocurrency used in criminal activity is relatively small compared to the total amount of cryptocurrency traded. According to Chainalysis, the estimated usage of crypto in crime in 2022 was \$20 billion, which represents only 0.55% of the daily turnover of Bitcoin alone. In comparison, traditional fiat currencies are far more prevalent in criminal activities. Europol estimates that 30% of all €500 notes have been used in money laundering.
- Read the report [here](#).



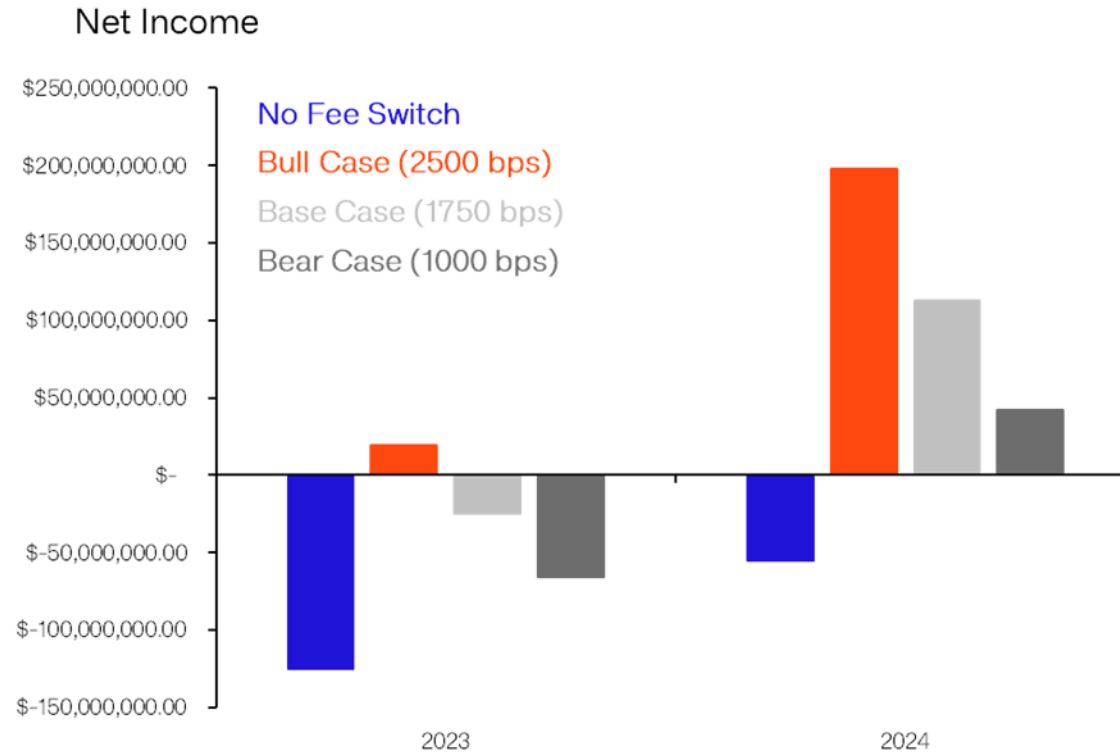
Source: Chainalysis Crypto Crime Report 2023



Source: UN, Chainalysis, CoinShares, data available as of close 02 March 2023

Uniswap Investment Case

- Uniswap's main value driver over the coming years is the fee switch, which will direct between 10-25% of all fees to the protocol turning deep negative net earnings positive in 2024. After issuance ends in 2024, all top-line revenue will flow straight to the bottom line, generating over \$100m in profit in our base case scenario and will compound year-over-year to the token holder as protocol costs stay at zero.



Source: Token Terminal, CoinShares, data available as of close 06 March 2023

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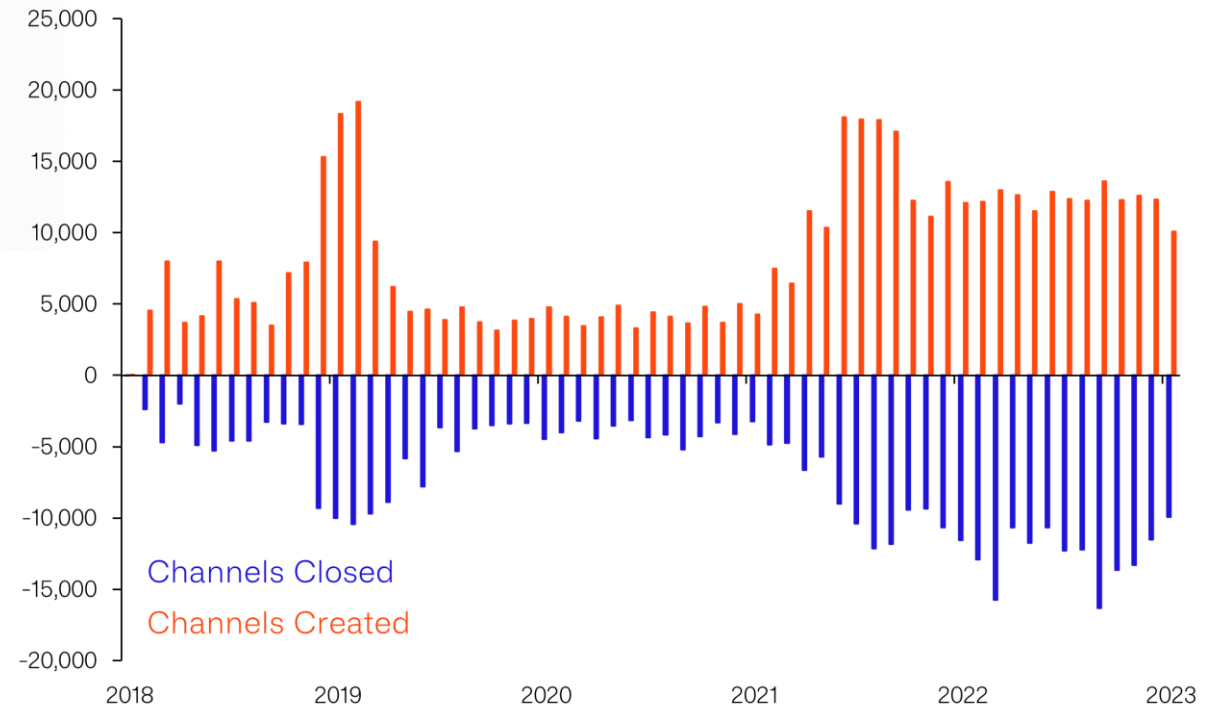
Report coming soon.

Bitcoin Market Fundamentals

While it is not possible to specifically quantify the payment activity on the Lightning Network, we have seen several pieces of evidence that suggest bitcoin Medium of Exchange usage is growing on the platform.

One of which is the general increase in the number of payment channel transactions made on a monthly basis since 2021. The average increase in channel transactions over time suggests to us that routing service providers are being encouraged to make more ongoing transactions as a result of the potentially growing payment demands of users on the Lightning Network.

Total Monthly LN Channel Opens/Closes have Increased

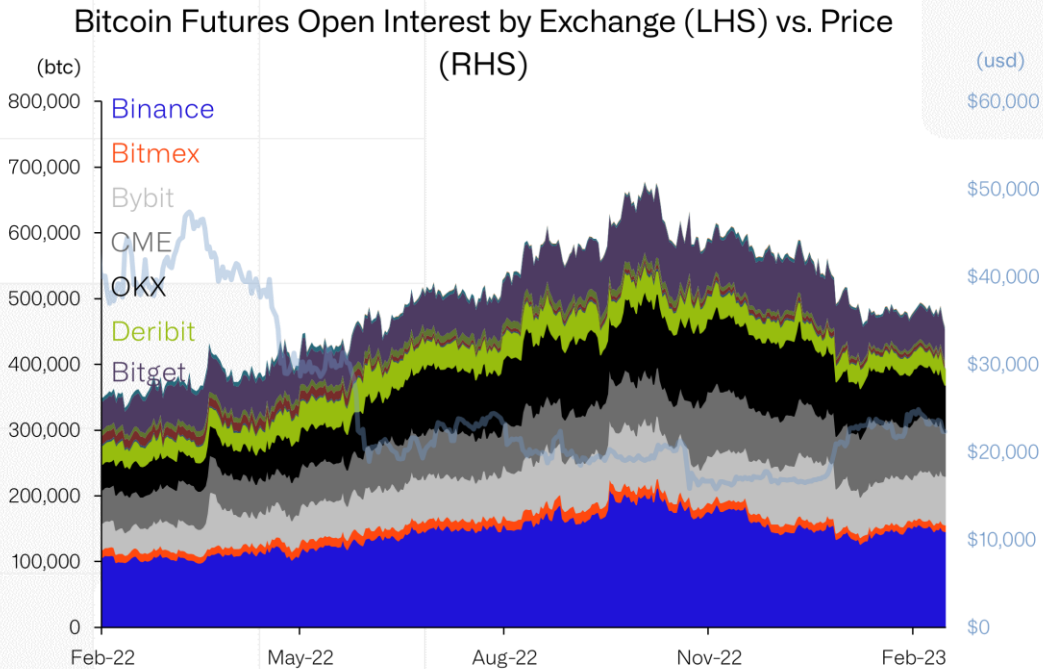


Source: Tx.stats, CoinShares, data available as of close 28 February 2023

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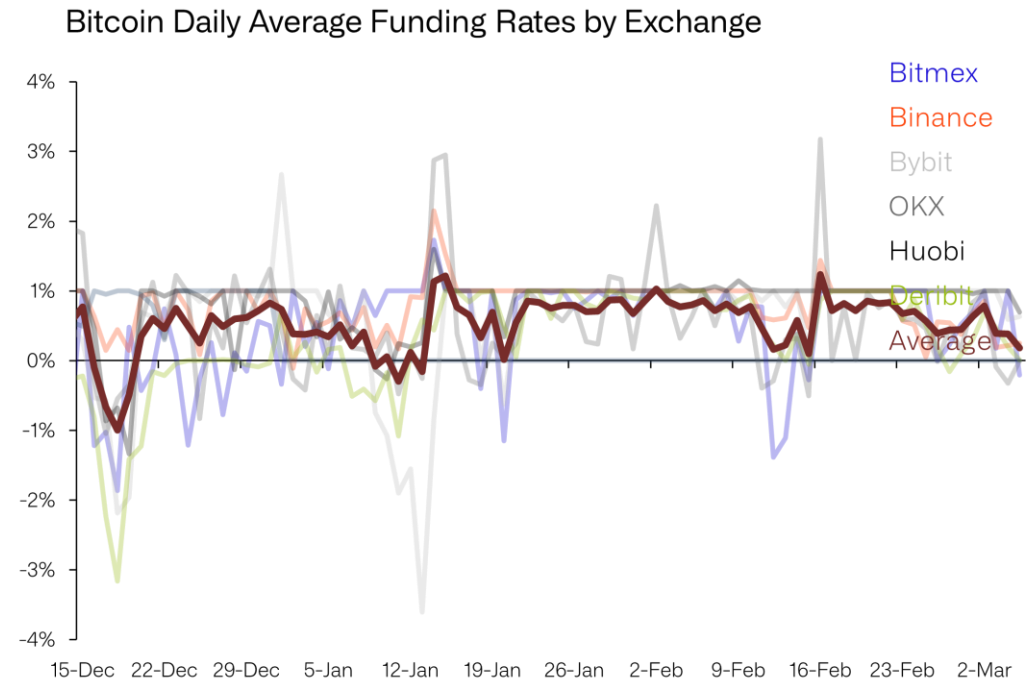
Bitcoin Futures Overview

Bitcoin Futures Open Interest has fallen over the past two week across all exchanges by 5.8%, or roughly 28,000 BTC (US\$ 626M). In parallel, the average funding rate across perpetual products has steadily dropped below neutral rates (1%). Taken together, this might suggest long traders are potentially taming back their positions at a time when the bitcoin price could be losing some momentum. The Bitcoin price has appreciated 35% YTD, however it has fallen by 8% in the past two weeks, and 3% in the first few days of March.



Source: Coinglass, CoinShares, data available as of close 04 March 2023

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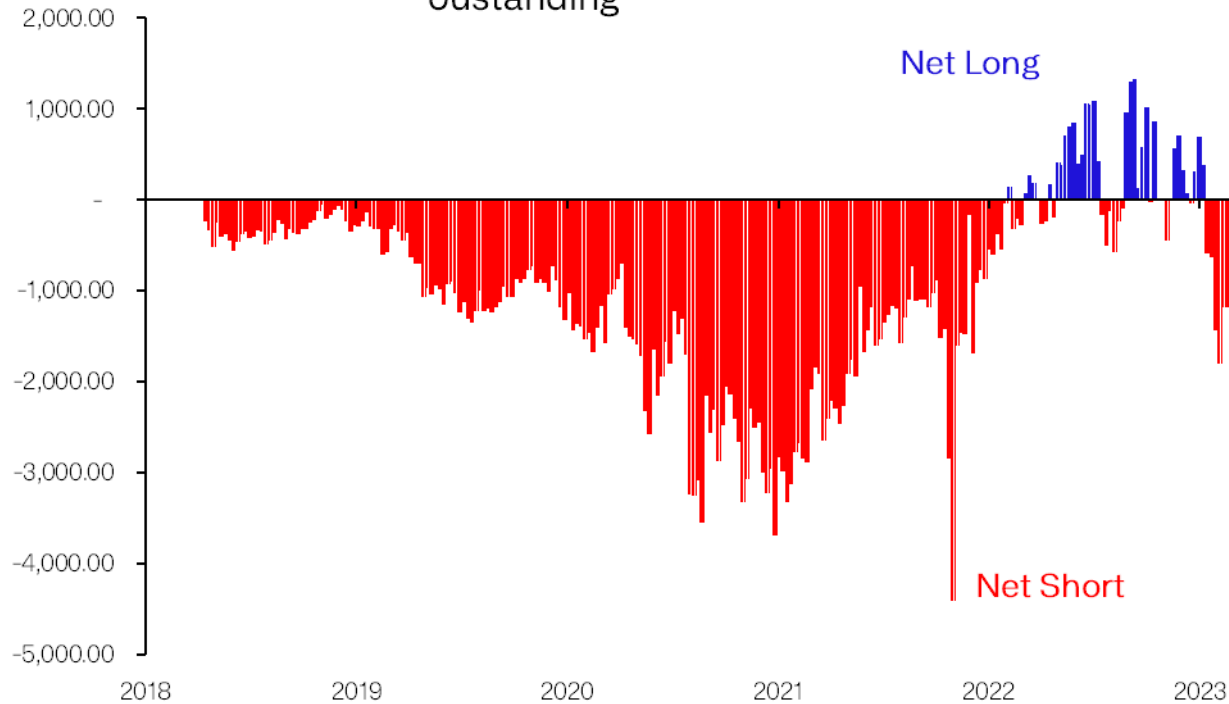
Source: Coinglass, CoinShares, data available as of close 04 March 2023

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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

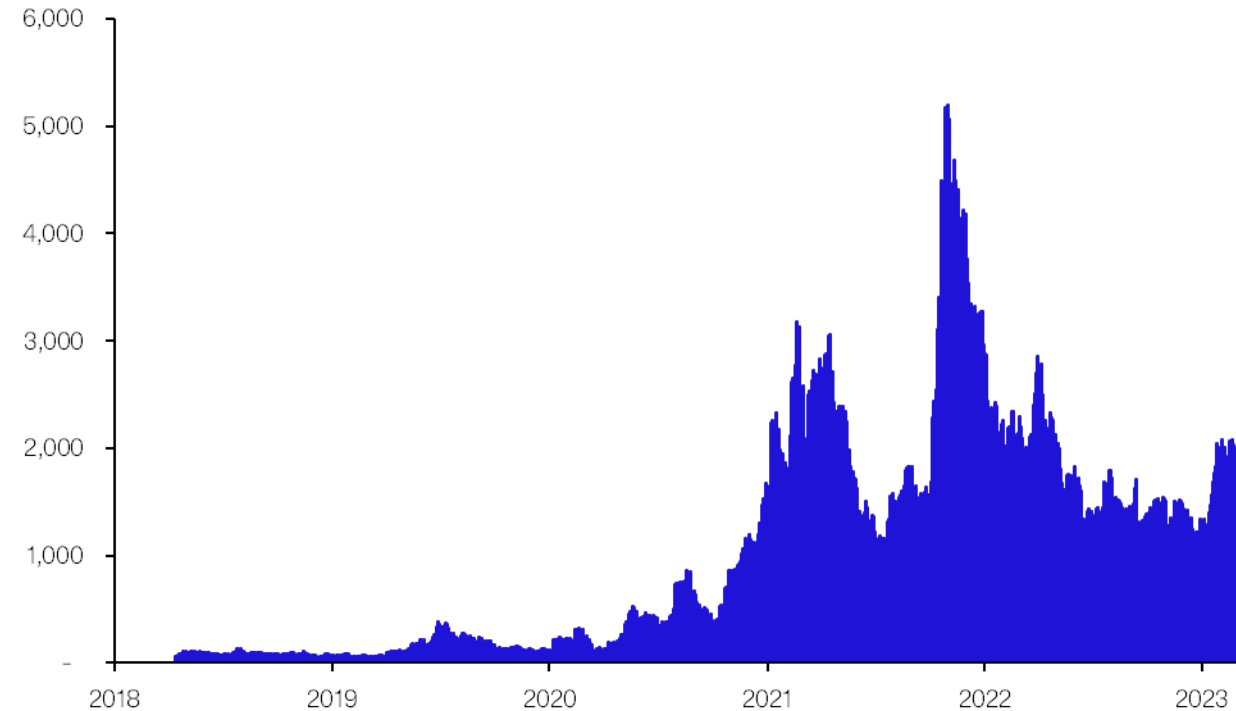
CME Bitcoin Futures contracts net non-commercial
outstanding



Source: Bloomberg, CoinShares, data available as of close 06 March 2023

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CME Bitcoin Futures contracts total outstanding (US\$m)



Source: Bloomberg, CoinShares, data available as of close 06 March 2023

CoinShares

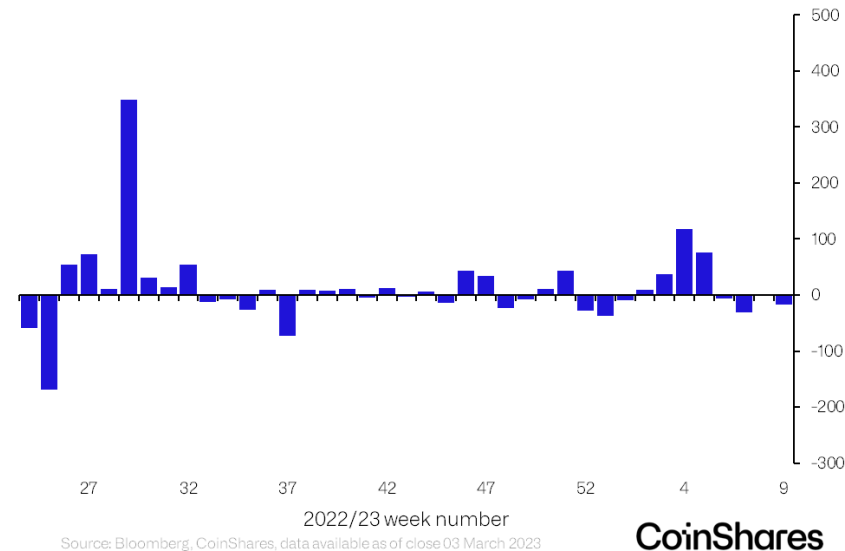
Digital Asset Fund Flows

Outflows of US\$17m highlight ongoing regulatory concerns

- Digital asset investment products saw minor outflows totalling US\$17m last week, marking the 4th consecutive week of negative sentiment.
- Bitcoin remains the focus, with outflows for the 4th consecutive week totalling US\$20m, while short-bitcoin saw inflows for a third week totalling US\$1.8m.
- The poor sentiment likely represents continued investor concerns over regulatory uncertainty for the asset class.

Full report [here](#)

Weekly Crypto Asset Flows (US\$m)



Flows by Provider (US\$m)				
CoinShares	Week flows	MTD flows	YTD flows	AUM
Grayscale	-	-	-	19,227
CoinShares XBT*	-1.2	-0.7	-5	1,448
CoinShares Physical*	-0.6	-0.4	34	426
21Shares	-7.3	-7.0	29	1,058
ProShares	8.3	9.1	74	862
Purpose	0.4	0.8	2	766
3iQ	-	-	45	655
CI Investments	-0.9	-1.5	-1	490
Other	-15.6	-11.6	-7	3,820
Total	-17.0	-11.4	172	28,753

Flows by Asset (US\$m)				
CoinShares	Week flows	MTD flows	YTD flows	AUM
Bitcoin	-20.1	-13.1	126	18,556
Ethereum	0.7	0.8	8	6,823
Multi-asset	0.8	0.5	-23	2,417
Binance	-0.4	-	-0	301
Short Bitcoin	1.8	0.1	50	163
Litecoin	-	-	0	145
Tron	-	-	-0	66
Solana	0.3	0.2	5	60
Polygon	0.0	0.0	1	35
XRP	-	-	0	34
Other	-0.1	0.1	6	152
Total	-17.0	-11.4	172	28,753

Source: Bloomberg, CoinShares, data available as at 03 Mar 2023

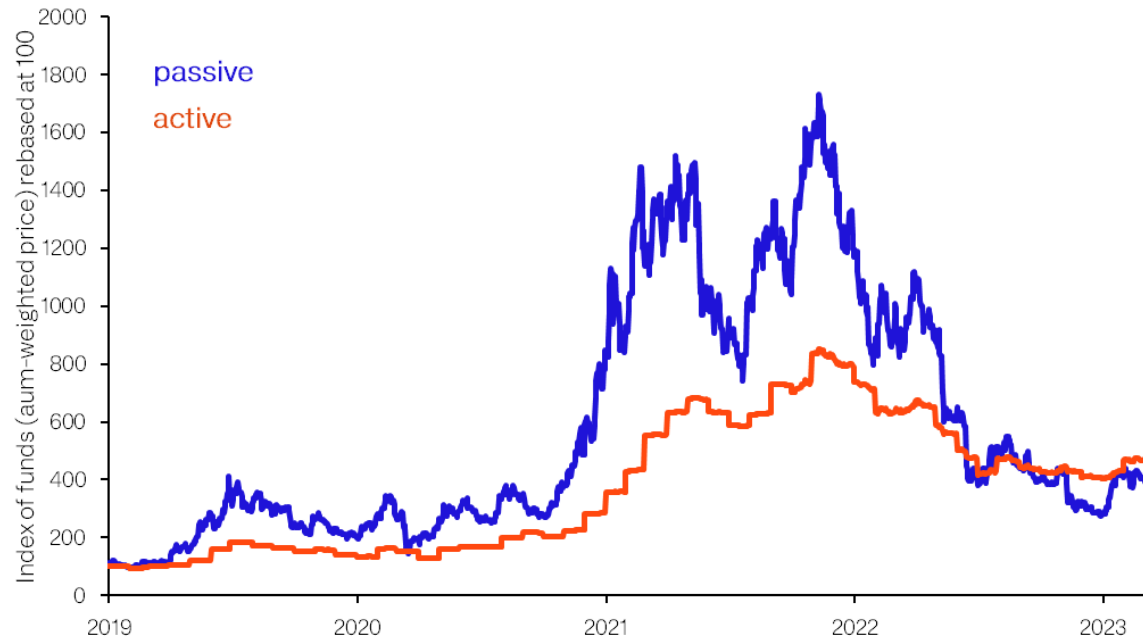
* Independent daily attestation by Armanino

Flows by Exchange Country (US\$m)				
CoinShares	Week flows	MTD flows	YTD flows	AUM
Australia	-	-	-	8
Brazil	-0.4	-0.4	-27	276
Canada	-0.8	-0.1	56	2,132
France	0.1	0.0	1	8
Germany	-13.6	-11.2	68	1,282
Sweden	-1.2	-0.7	-5	1,448
Switzerland	-6.5	-6.7	37	1,369
United States	7.6	8.4	72	20,889
Other	-2.0	-0.7	-31	1,340
Total	-17.0	-11.4	172	28,753

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. (New Weighting methodology highlights passives are lower beta)

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



Actively trading funds only, so there is a survivorship bias, NAV data frequency low for Actives

Source: Bloomberg, CoinShares as of close 28 Feb 2023

CoinShares

Digital Asset fund Performance & Risk

CoinShares	Passive	Active
1m	-2.0%	0.0%
3m	25.8%	14.2%
6m	-9.0%	5.7%
1y	-58%	-27%
2Y	-56%	10%
annualised returns (since 2019)	49%	57%
# actively trading	170	28
% actively trading (February)	100%	93%
assets under management (US\$m)	26,922	1,831
Average annual fee (%)	1.45	1.75
max drawdown	84.3%	52.6%
volatility	67.4%	36.9%
return dispersion (weighted)	4.1%	1.3%
sharpe	0.71	1.51

Source: Bloomberg, CoinShares as of close 28 Feb 2023

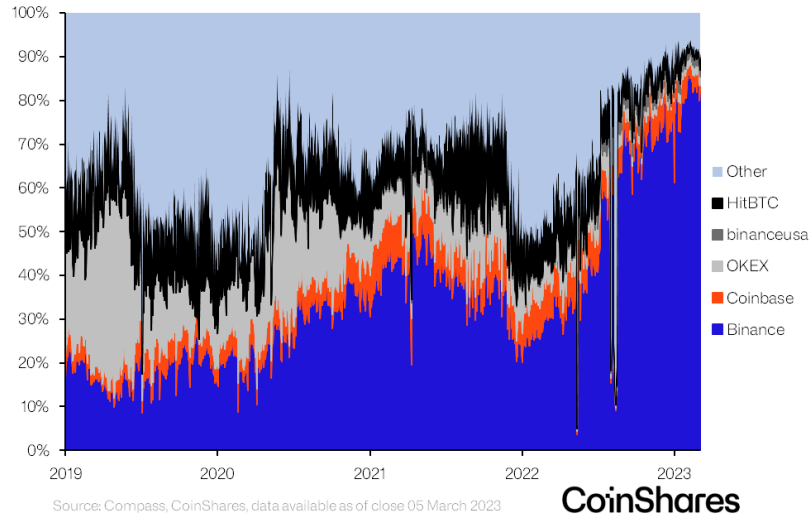
Bitcoin Volumes

- Binance's market share, having recently peaked at 88%, has fallen to 80% as the regulatory crackdown continues.

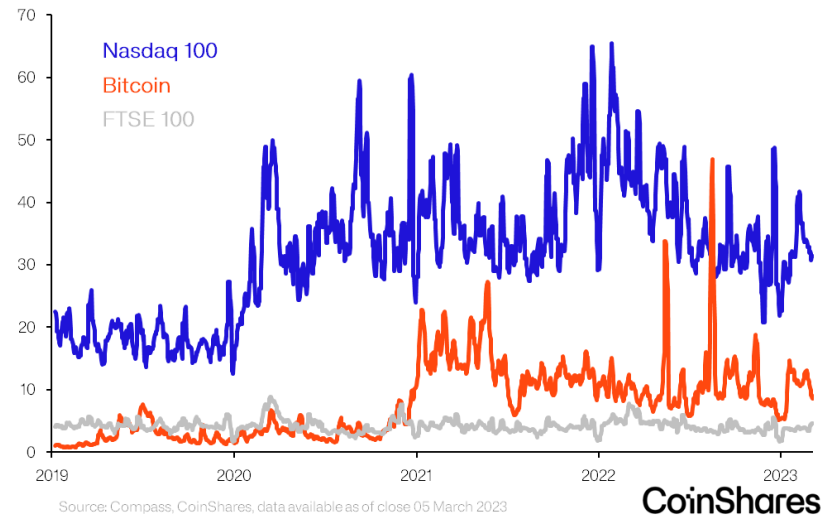
- Volumes in Bitcoin ranged from US\$7bn to US\$14bn over the last two weeks.

- USDT increased its market share, primarily at the expense of BUSD

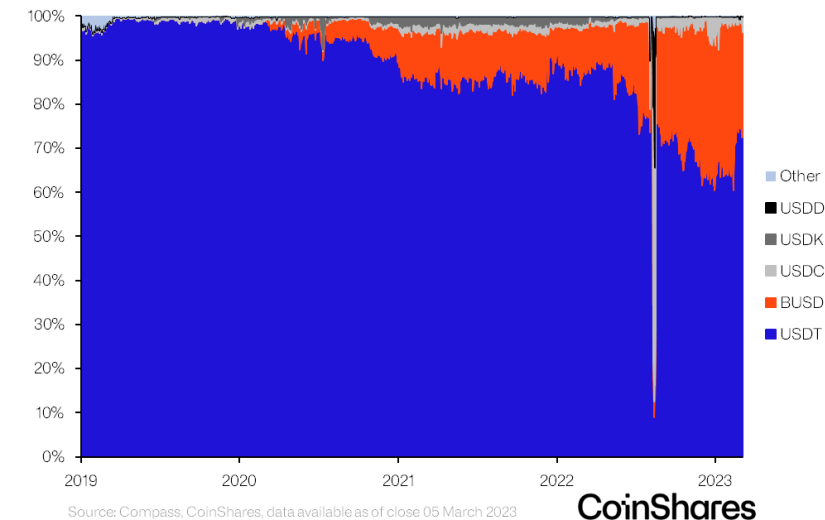
Exchange Market Share of Bitcoin volumes



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



Stablecoin Market Share of Bitcoin volumes



Market Correlations

BTC 3-month Correlation to Equities (Nasdaq) fallen from its 71% peak to 34% today.

It's lowest point since End-2021 when the FED was poised to hike interest rates.

After the recent rally, Bitcoin 30d price volatility has fallen back down below 40%. It's long-term trend of declining volatility continues.

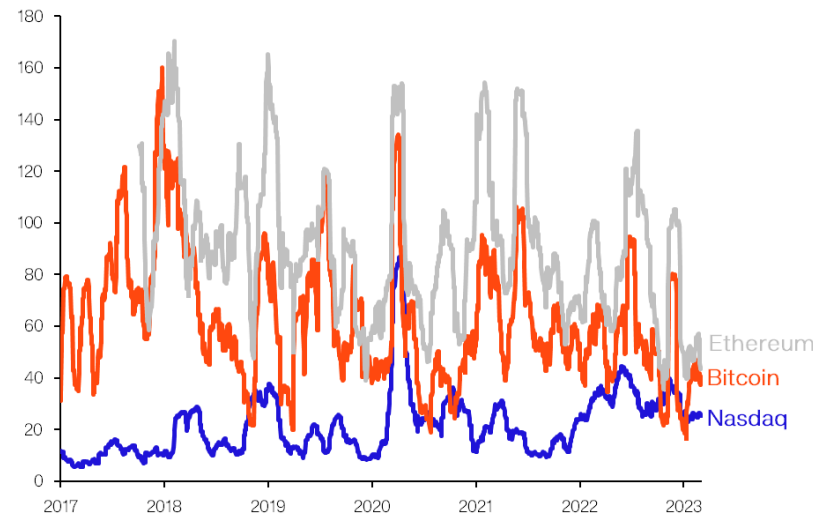
BTC Correlation to various equity indices in varied price shock events (since 2019)

CoinShares	Inflation-linked Bonds	MSCI World	S&P 500	Gold	NASDAQ 100	10yr Treasuries	CRB	DXY 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 06 March 2023

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

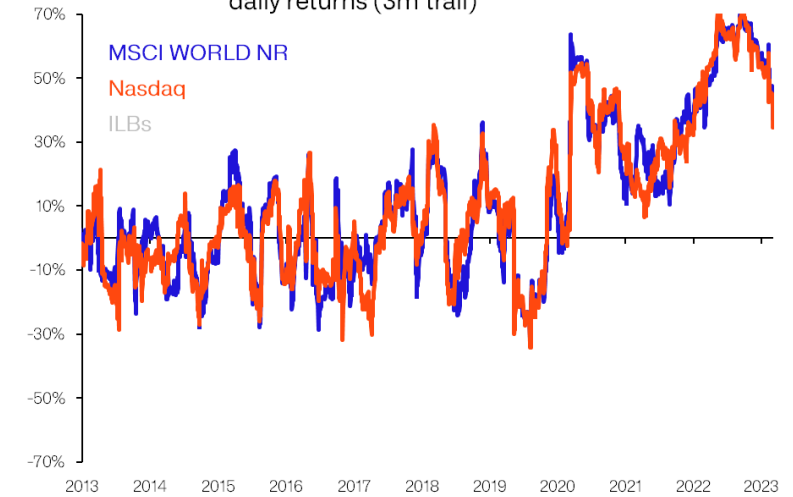
Bitcoin Volatility vs Equities (30d annualised)



Source: Bloomberg, CoinShares, data available as of close 6 March 2023

CoinShares

MSCI World & Nasdaq 100 vs Bitcoin correlation of daily returns (3m trail)



Source: Bloomberg, CoinShares, data available as of close 03 March 2023

CoinShares

Bitcoin in a Portfolio

- A portfolio weighting of 4% achieves a Sharpe ratio of 1.16, 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)								
CoinShares	60%/40%	4.0%						
	benchmark (Equities/Bonds)	4.0% Bitcoin	4.0% Bitcoin (no rebalancing)	4.0% Ethereum	4.0% Gold	4.0% HFRX	4.0% CRB	4.0% REITs
annualised returns	6.8%	14.2%	37.6%	16.2%	7.0%	6.7%	6.8%	6.9%
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%	9.1%	9.0%	9.6%
correlation	-	92.7%	37.4%	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)	0.50	1.16	0.85	1.35	0.53	0.50	0.52	0.50
Sortino	-	1.47	1.09	1.71	0.65	0.61	0.63	0.60

Source: Bloomberg, CoinShares, data available as of close 06 March 2023

- Data derived from a balanced 60/40 equity/bond portfolio, with an equal weight deduction 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

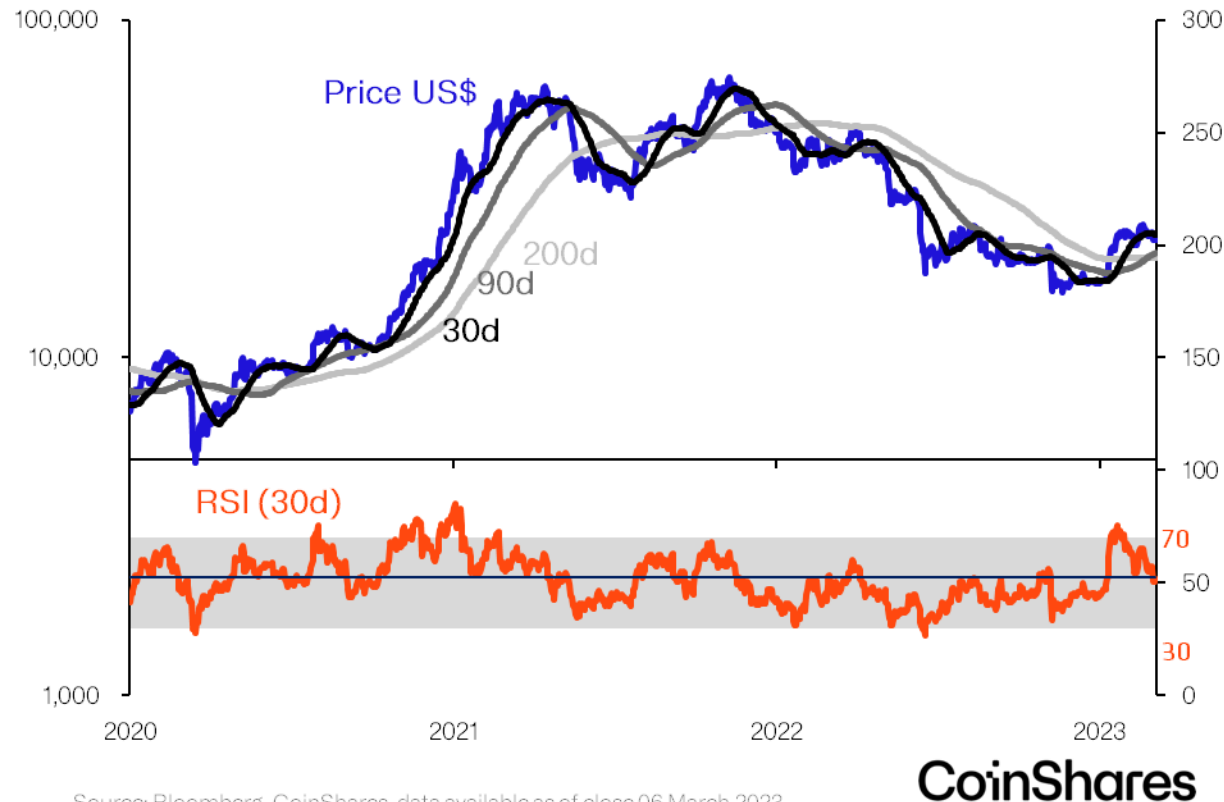
We have written a detailed portfolio analysis [here](#)

Technical/Value Indicators

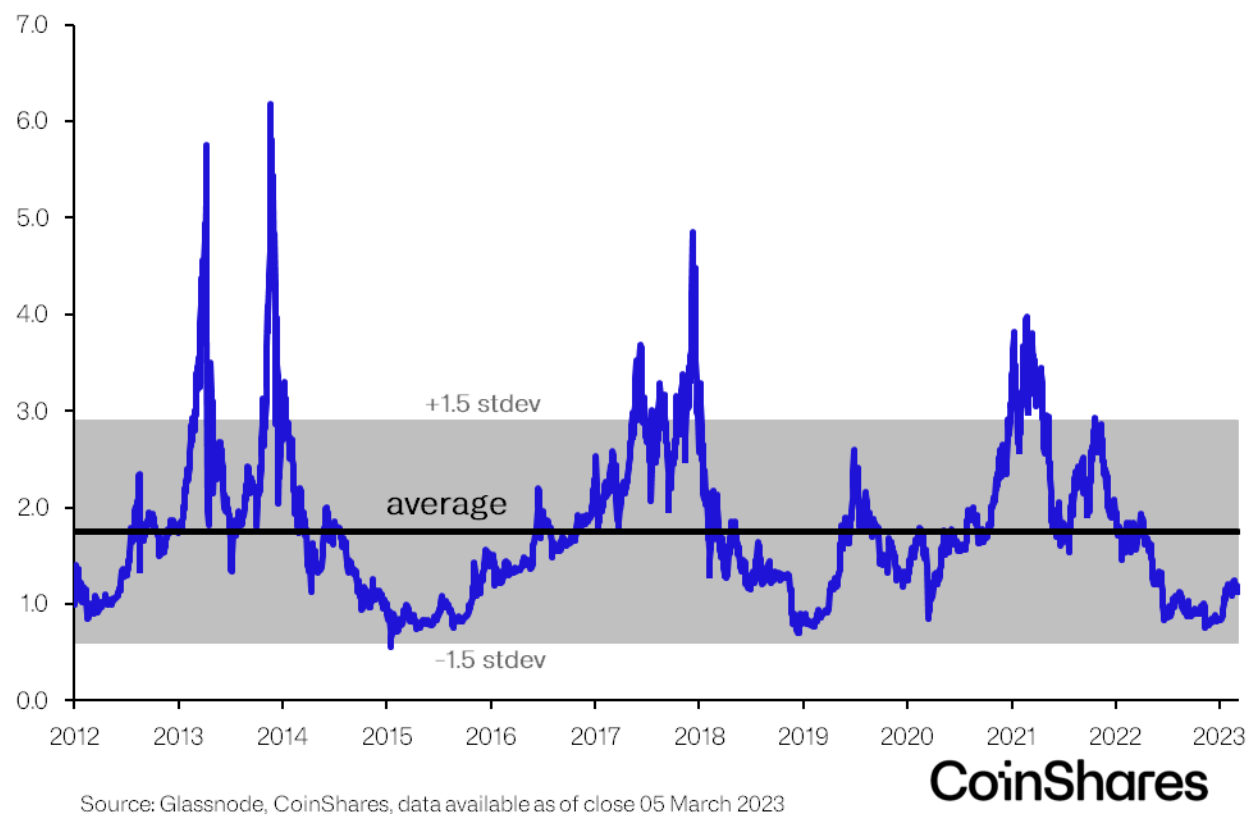
— Bitcoin's RSI has fallen back below 50

— MVRV Value indicator continues to highlight multi-year low valuations. More research on this indicator is available [here](#)

Bitcoin Moving averages and Relative Strength Index



Bitcoin Market Value / Realised Value (MVRV)



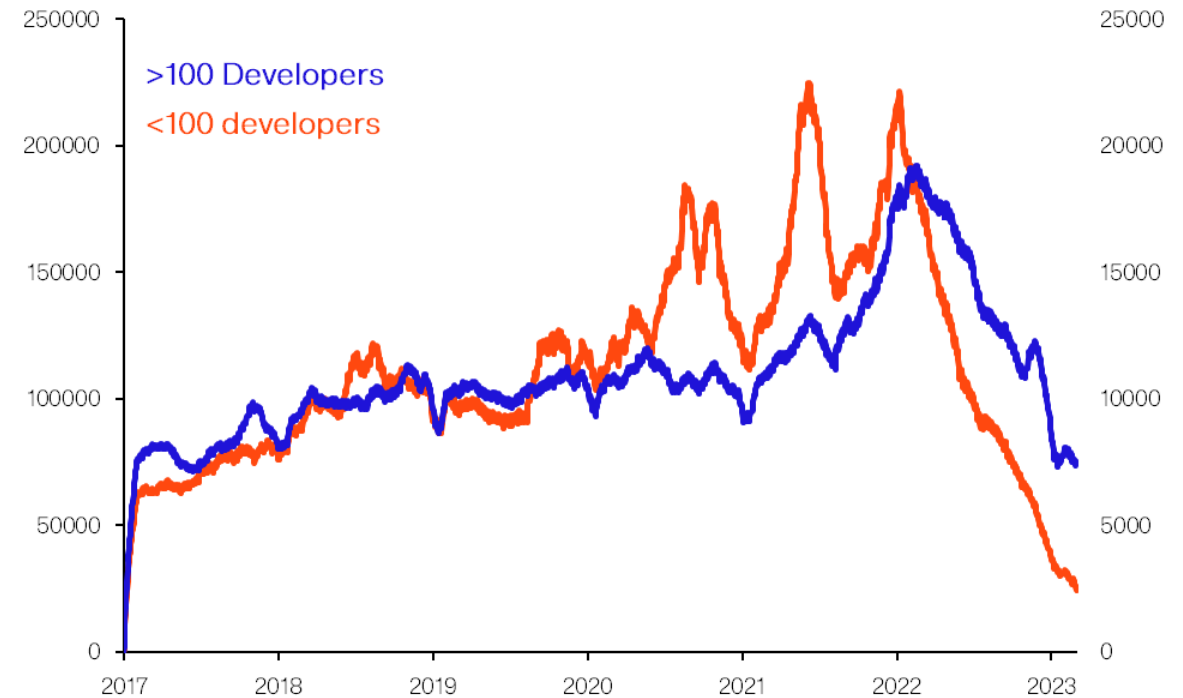
GitHub Development Landscape

- While it is alarming to see such declines in active developers, existing scale is an advantage, with the number of developers on the larger networks retaining more developers – this is particularly noticeable on the Ethereum network. Solana and Polygon have particularly suffered over the last 180 days., while the Lightning Network has been resilient.

Ecosystem summary (30d average)						
CoinShares	# of Unique Developers	180d change %	30d change%	# of Commits	180d change %	30d change%
Ethereum	1,340	-38%	0.0%	576	-32%	-13%
Cosmos	727	-33%	-11.8%	255	-49%	-43%
Polkadot	712	-28%	-4.9%	352	-26%	-17%
General	692	-54%	-4.0%	312	-42%	-11%
Solana	534	-58%	-6.8%	397	-40%	-29%
Gitcoin-Grants	461	3%	-13.8%	265	58%	74%
Cardano	362	-26%	-19.2%	181	-16%	0%
Lightning	354	-8%	-4.1%	180	-8%	-14%
Internet-Computer	336	-15%	-0.9%	287	21%	36%
Tezos	293	-21%	-11.2%	211	-12%	-25%
Truffle	257	-19%	-14.6%	603	666%	809%
Defillama	251	-21%	-13.7%	93	-3%	-9%
Near	247	-58%	-14.8%	546	17%	18%
Near	247	-58%	-5.0%	546	17%	18%
Polygon	244	-66%	10.4%	101	-72%	-66%
Open-Source-Cryptograph	207	-3%	-4.6%	62	50%	31%
Starknet	201	-16%	-5.2%	76	-32%	-19%
Parity	199	-11%	-2.5%	67	-8%	11%
Filecoin	186	-11%	-3.1%	110	5%	14%
Multiversx-Elrond	183	-49%	-4.2%	94	-38%	-24%
Total	39,294	-60%	-40%	36,221	-5%	27%

Source: ElectricCapital, CoinShares, data available as at 01 March 2023

Small vs Large Developer Counts



Source: Electric Capital, CoinShares, data available as of close 05 March 2023

GitHub Development Landscape

Top Rising Developers (30d average)				
CoinShares	# of developers	180d change %	# of commits	180d change %
ton	147	60%	48	48%
ethereum-execution	138	31%	29	51%
metamask	120	13%	50	56%
sui-network	97	11%	38	-23%
sui-network	97	11%	38	-23%
balancer	92	10%	46	-11%
balancer	92	10%	46	-11%
balancer	92	10%	46	-11%
groestlcoin	102	4%	42	12%
gitcoin-grants	448	3%	265	58%
hyperledger	174	-3%	46	-11%
open-source-cryptography	170	-3%	62	50%
nym	85	-4%	30	161%
nym	85	-4%	30	161%
lightning	330	-8%	180	-8%
Total	39,294	-60%	36,221	-5%

Source: ElectricCapital, CoinShares, data available as at 01 March 2023

Top Declining Developers (30d average)				
CoinShares	# of developers	180d change %	# of commits	180d change %
polygon	301	-66%	101	-72%
osmosis	221	-65%	66	-76%
bnb-chain	128	-61%	88	-35%
comdex	115	-60%	18	-75%
liquid-driver	86	-60%	4	-90%
liquid-driver	86	-60%	4	-90%
near	290	-58%	546	17%
solana	573	-58%	397	-40%
arthx	136	-56%	13	-89%
arthx	136	-56%	13	-89%
arthx	136	-56%	13	-89%
general	749	-54%	312	-42%
hubble	139	-50%	18	-76%
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multiversx-elrond	217	-49%	94	-38%
Total	39,294	-60%	36,221	-5%

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