



3 July
2024

2024

Q2

Digital Gold Institute: Vision

R&D center of excellence focused on teaching, training, consulting, and advising about scarcity in digital domain (bitcoin and crypto-assets) and the underlying blockchain technology



Bitcoin: Digital Gold

The most successful attempt at creating *scarcity in the digital realm* without a trusted third party. *Bitcoin is the digital equivalent of gold, disruptive for our current digital civilization and the future of money and finance.* More a crypto-commodity than a crypto-currency, Bitcoin aims to be world reserve asset.



Blockchain: Hype or Reality?

Blockchain requires an intrinsic native digital asset to provide the economic incentives for the blockchain maintainers to be honest. Without the seigniorage revenues associated to its native asset, a blockchain system would need to select and appoint its maintainers, ultimately resorting to central governance.



Beyond Bitcoin: Timestamping

A timestamp demonstrates that a document existed in a specific status prior to a given point in time. Digital data can be securely timestamped through the attestation of its hash value in a blockchain transaction. *What jewellery is for gold, timestamping could be for bitcoin: not essential but effective at leveraging its beauty.*



Financial Services for Crypto

The most promising field, instead of technological applications of blockchain, is the development of financial services for crypto assets: those tools, practices, and facilities needed by institutional investors and high-net-worth individuals. *Finance might not need blockchain, but the blockchain economy needs new financial services.*

Digital Gold Institute: Activities

R&D center of excellence focused on teaching, training, consulting, and advising about scarcity in digital domain (bitcoin and crypto-assets) and the underlying blockchain technology

Consulting



Becoming one of our [partners](#) means empowering your business with a proper understanding of Bitcoin, crypto assets, and blockchain technology. It is a strategic choice that will allow you to leverage unique opportunities while avoiding the irrational hype that pollutes these topics.

Training



We offer training and education about Bitcoin, crypto assets, blockchain, distributed ledger, smart contracts, and cryptography: the program is based on the [Bitcoin and Blockchain Technology](#) course taught at Milano-Bicocca and other universities.

Research



Our research activity includes quarterly [reports](#) on the bitcoin and blockchain ecosystem and the thesis works of our [students](#). Anyway, the bulk of the activity is happening at the [Crypto Asset Lab](#) (CAL), a joint research initiative with the University of Milano-Bicocca.

Development



We [write code](#) and love to get our hands dirty in programming and technology. Check out our [OpenTimestamps calendar](#) free facility and [btclib](#), an open-source Python library intended for teaching/learning/using bitcoin, its blockchain, and the associated elliptic curve cryptography.

Advisory and Training for Institutions, Consultancies, and Private Firms

Selected current and past collaborations

Ania


ASSAGENTI

DEGLI STUDI
DI MILANO
UNIVERSITÀ
BICOCCA

BNP PARIBAS

 **Borsa Italiana**

BTO

CERiF

 CRYPTOVALUES

Deloitte.


Fintech District

 **Harvard**
Extension Student Environmental Club


GENERALI

INTESA  SANPAOLO

 **London**
Stock Exchange

 prometeia

 **The European House**
Ambrosetti

Agenda

1. **Market**
2. **Ecosystem**
3. **Regulation**
4. **Technology**
5. **The Institute**

www.dgi.io/reports/

@ 2024 Digital Gold Institute

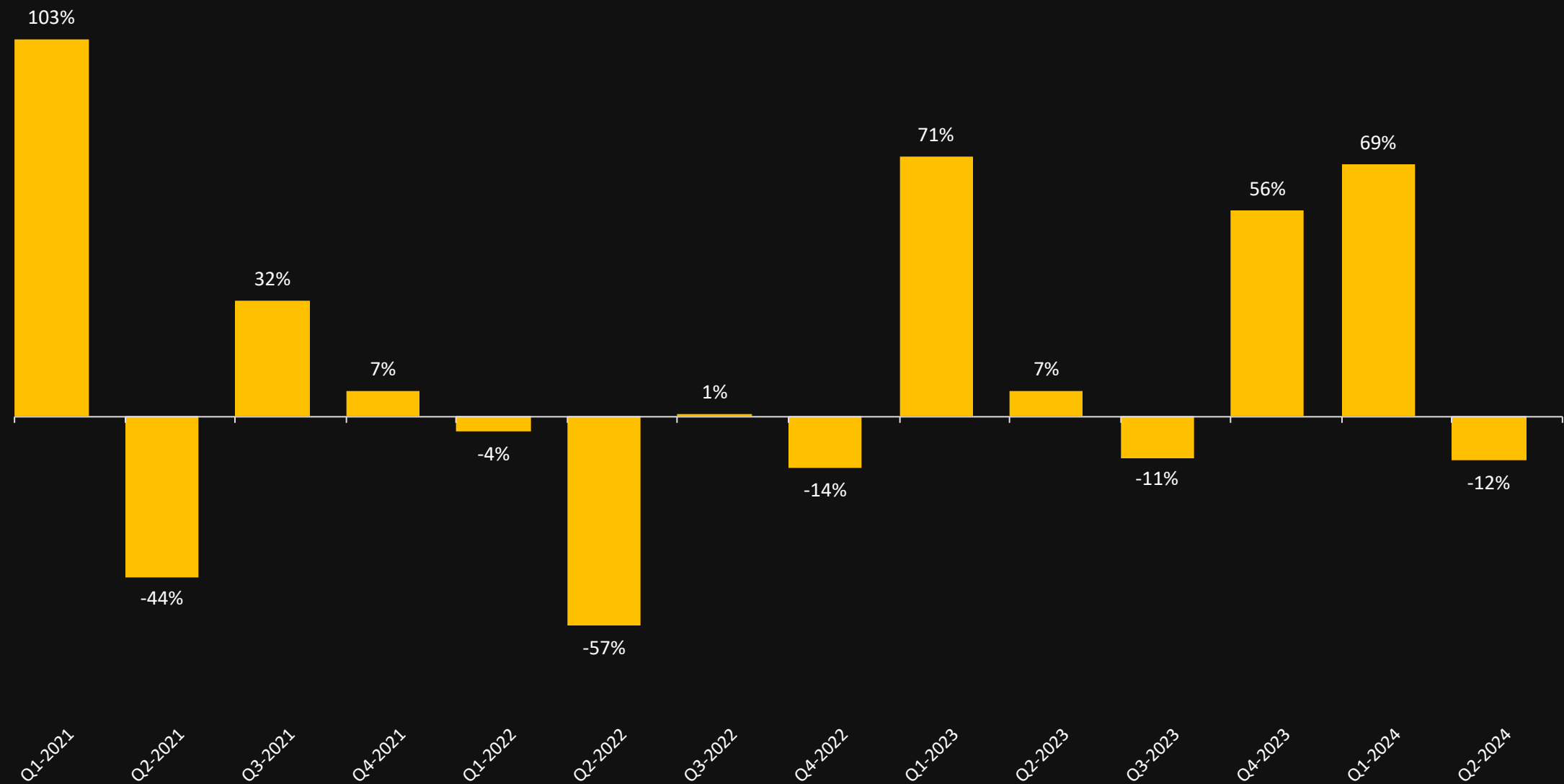




MARKET

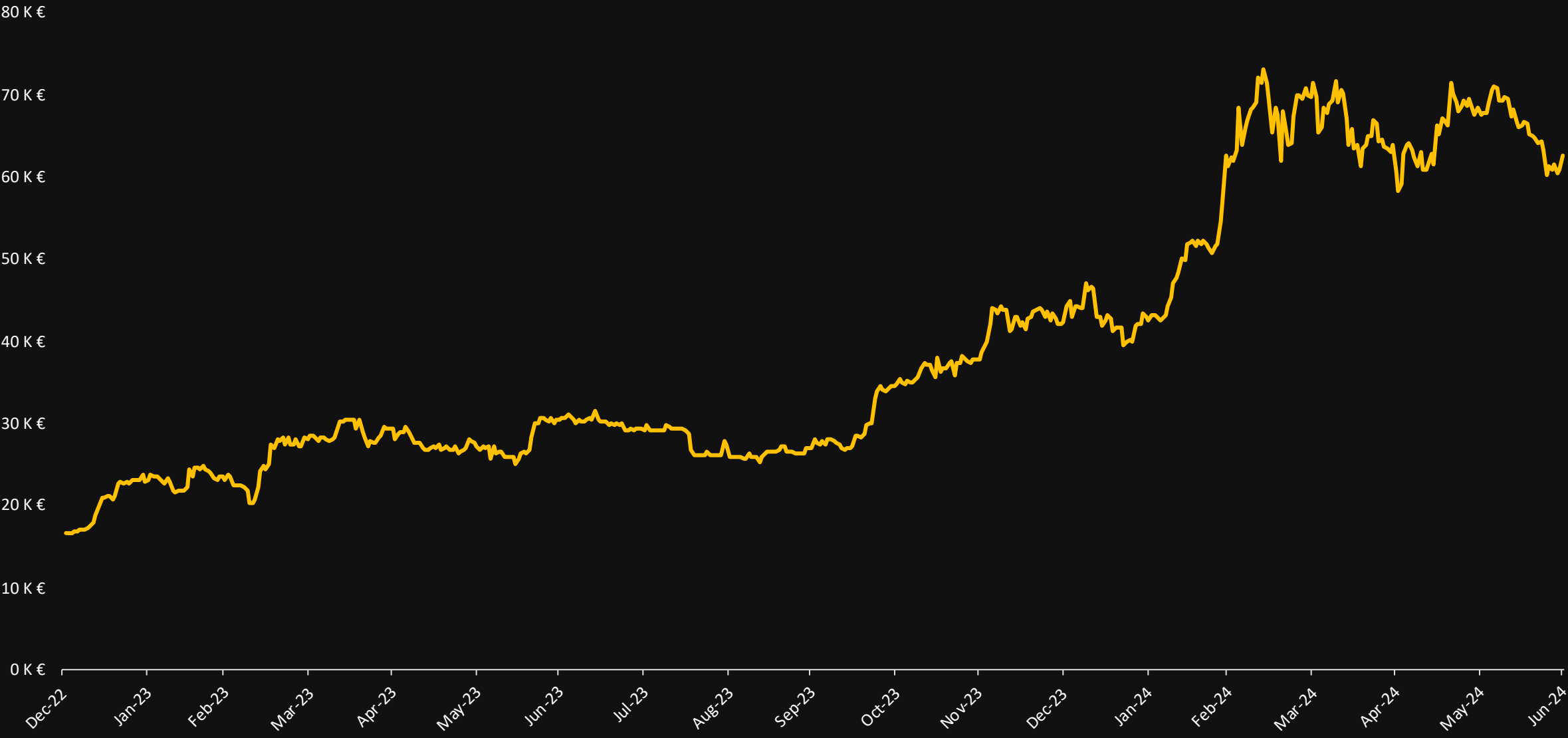


Bitcoin Quarterly Performances





Bitcoin YTD Performance: +42%

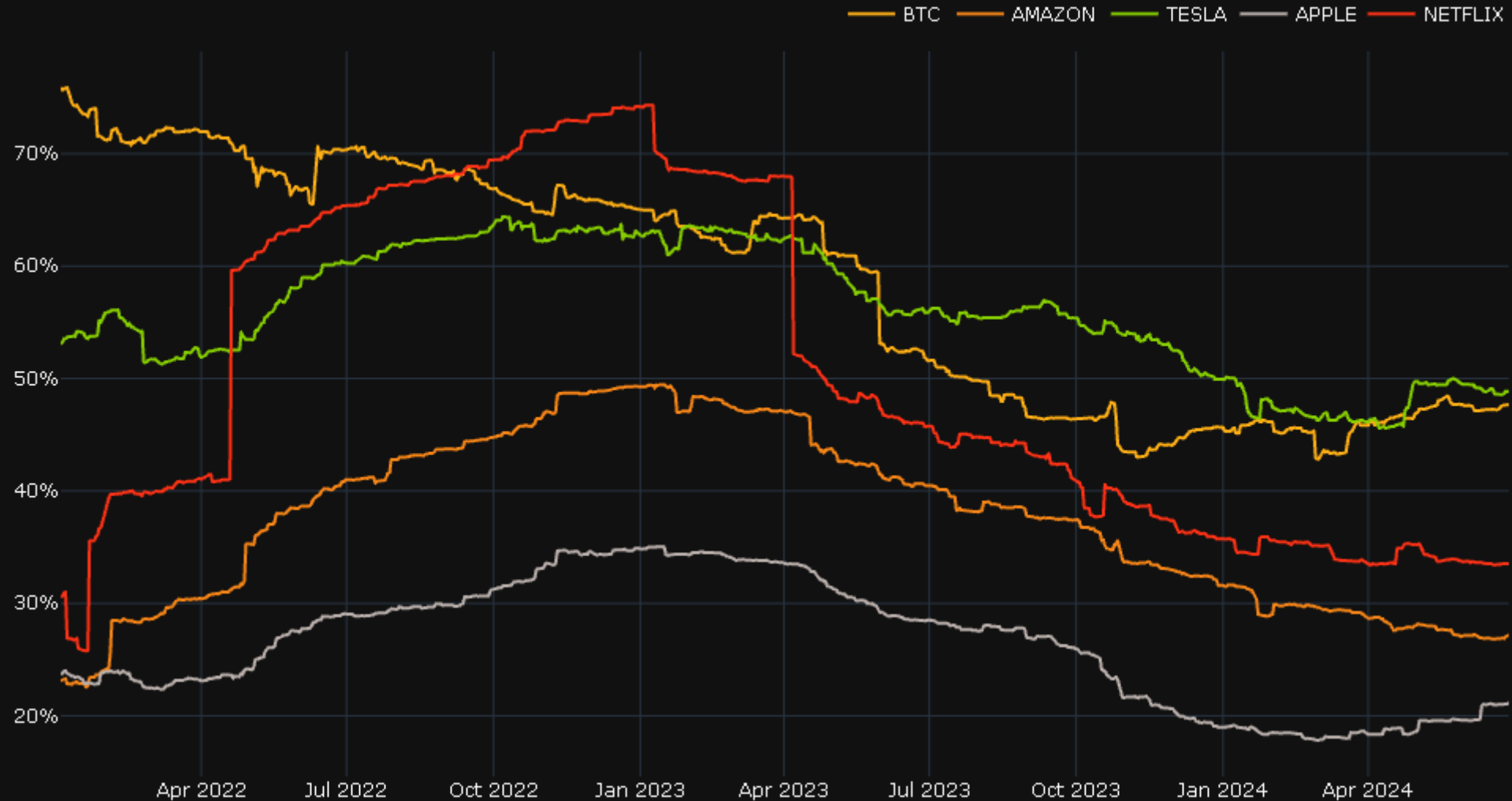


Bitcoin Yearly Performances



Volatility of Best Performing Assets

252 Days Rolling Window



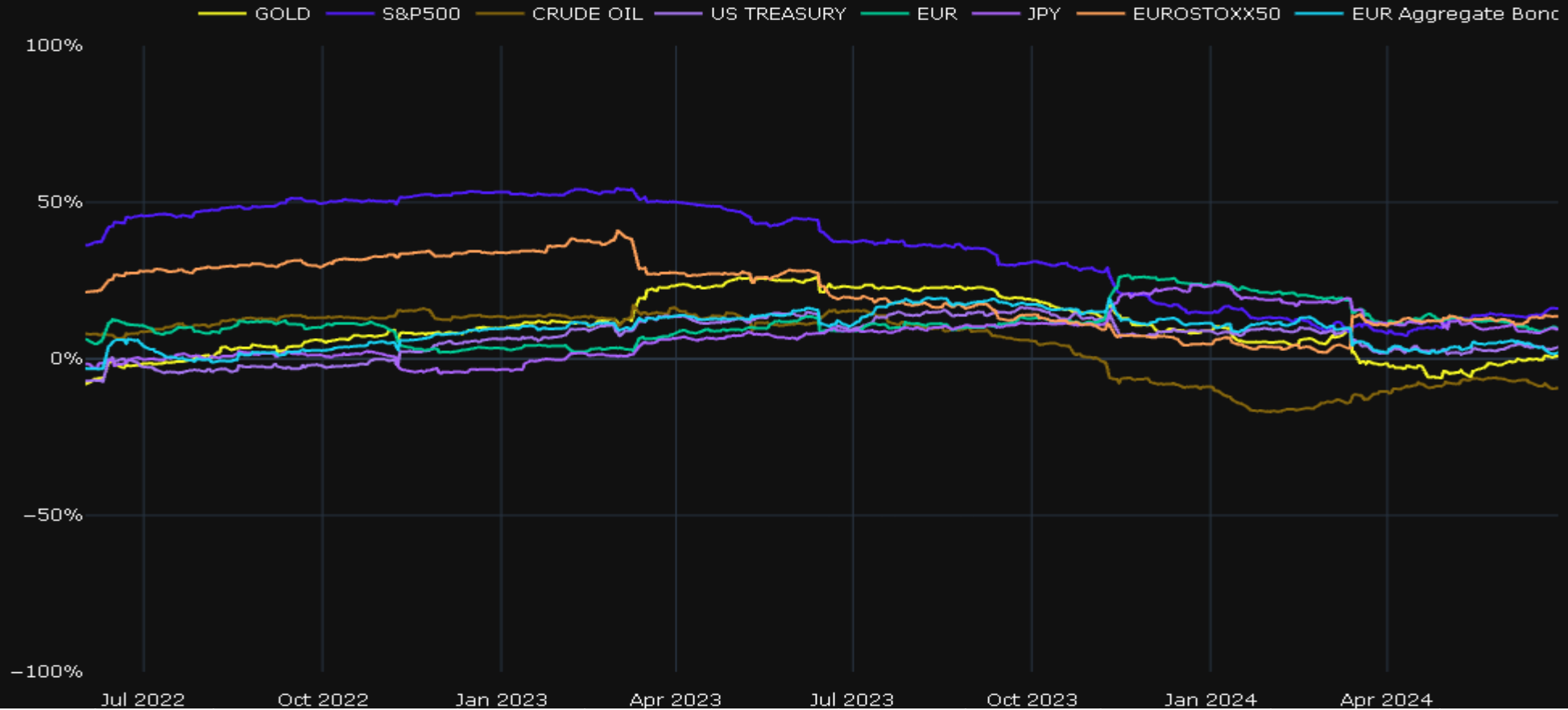
Asset Class 1Y Correlation Matrix

1Y																
BTC	100.00%															
GOLD	0.91%	100.00%														
COPPER	7.19%	45.26%	100.00%													
CRUDE OIL	-9.01%	13.33%	20.10%	100.00%												
CORN	1.73%	2.51%	13.60%	5.51%	100.00%											
EUR	10.07%	2.62%	7.12%	-6.17%	6.25%	100.00%										
GBP	9.12%	1.33%	10.12%	-7.38%	6.40%	84.00%	100.00%									
JPY	9.48%	5.69%	4.15%	4.48%	4.93%	43.87%	43.42%	100.00%								
CHF	14.58%	4.57%	4.15%	-4.57%	10.69%	72.88%	67.83%	51.08%	100.00%							
NASDAQ	18.00%	8.92%	16.94%	-4.93%	-2.08%	11.15%	10.71%	10.52%	4.80%	100.00%						
S&P500	16.08%	14.44%	19.29%	-2.97%	-1.62%	11.54%	9.53%	12.27%	7.41%	94.61%	100.00%					
EUROSTOXX50	13.87%	15.62%	33.56%	3.61%	6.10%	14.19%	14.91%	15.38%	12.27%	36.90%	41.61%	100.00%				
VIX	-16.27%	-4.27%	-7.99%	15.07%	2.94%	-10.82%	-7.92%	-9.06%	-1.42%	-67.57%	-73.53%	-36.45%	100.00%			
US TREASURY	4.36%	32.07%	9.03%	-14.04%	4.78%	5.99%	5.52%	4.76%	6.06%	27.43%	31.60%	15.13%	-27.40%	100.00%		
PAN EUR	2.30%	28.10%	19.66%	-11.64%	8.80%	11.68%	6.99%	6.14%	10.17%	21.49%	22.96%	19.24%	-15.19%	60.39%	100.00%	
	BTC	GOLD	COPPER	CRUDE OIL	CORN	EUR	GBP	JPY	CHF	NASDAQ	S&P500	EUROSTOXX50	VIX	US TREASURY	PAN EUR	
	Crypto	Commodity				Currency				Equity			Volatility	Bond		

Asset	Gold	Copper	Crude Oil	Corn	EUR	GBP	JPY	CHF	NASDAQ	S&P 500	EURSTOXX	VIX	US Treasury	PAN EUR
Correlation at 30 June 2024	0.91%	7.19%	-9.01%	1.73%	10.07%	9.12%	9.48%	14.58%	18.00%	16.08%	13.87%	-16.27%	4.36%	2.30%

Asset Class 1Y Correlation With Bitcoin

1Y Rolling Window



Asset	Gold	Copper	Crude Oil	Corn	EUR	GBP	JPY	CHF	NASDAQ	S&P 500	EURSTOXX	VIX	US Treasury	PAN EUR
Correlation at 30 June 2024	0.91%	7.19%	-9.01%	1.73%	10.07%	9.12%	9.48%	14.58%	18.00%	16.08%	13.87%	-16.27%	4.36%	2.30%

Asset Class 3Y Correlation Matrix

3Y

BTC	100.00%															
GOLD	7.04%	100.00%														
COPPER	15.86%	38.58%	100.00%													
CRUDE OIL	6.94%	19.28%	37.43%	100.00%												
CORN	3.62%	9.37%	13.82%	20.03%	100.00%											
EUR	9.70%	6.48%	7.45%	-3.36%	2.62%	100.00%										
GBP	4.42%	7.16%	8.53%	1.77%	4.12%	77.35%	100.00%									
JPY	5.90%	2.92%	5.38%	5.31%	2.75%	42.86%	44.34%	100.00%								
CHF	7.39%	9.72%	6.59%	0.00%	3.98%	73.46%	62.10%	51.87%	100.00%							
NASDAQ	39.63%	5.26%	19.89%	7.05%	-4.17%	1.33%	0.38%	3.46%	-3.12%	100.00%						
S&P500	37.05%	6.94%	23.98%	13.86%	-2.51%	0.47%	0.62%	3.17%	-4.59%	95.63%	100.00%					
EUROSTOXX50	22.79%	4.48%	30.51%	11.51%	-3.60%	1.92%	4.67%	3.35%	-3.91%	48.31%	53.01%	100.00%				
VIX	-32.76%	-0.71%	-23.96%	-16.86%	0.19%	-2.53%	-1.51%	-3.04%	4.62%	-67.67%	-72.25%	-45.90%	100.00%			
US TREASURY	3.70%	35.60%	-0.36%	-15.97%	-2.23%	6.36%	5.84%	0.73%	9.63%	9.39%	7.59%	-3.46%	0.32%	100.00%		
PAN EUR	6.58%	28.50%	3.47%	-12.03%	2.23%	10.39%	7.55%	5.78%	10.67%	16.99%	16.33%	8.37%	-3.01%	64.22%	100.00%	
	BTC	GOLD	COPPER	CRUDE OIL	CORN	EUR	GBP	JPY	CHF	NASDAQ	S&P500	EUROSTOXX50	VIX	US TREASURY	PAN EUR	
	Crypto	Commodity				Currency				Equity			Volatility	Bond		

Corr = 100%

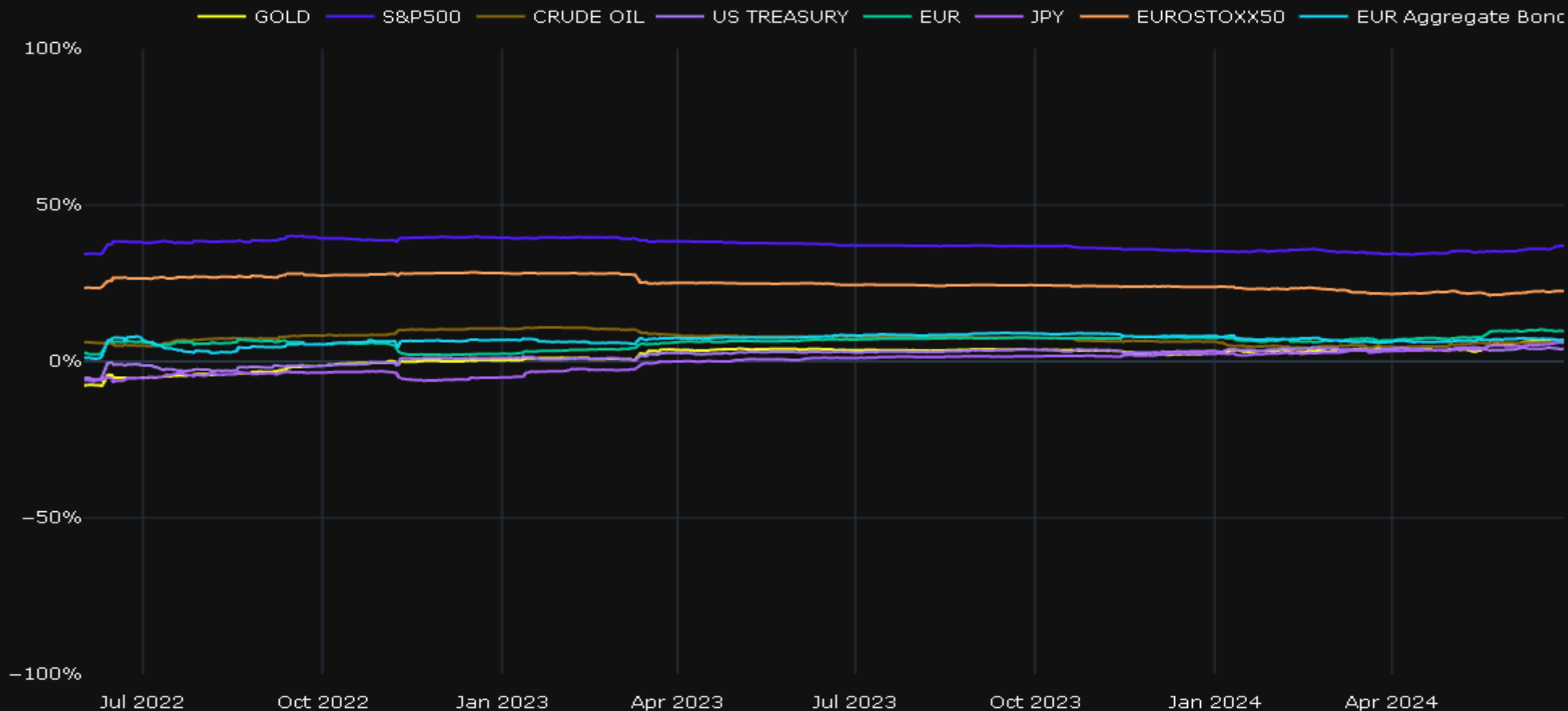
Corr = -100%

Asset	Gold	Copper	Crude Oil	Corn	EUR	GBP	JPY	CHF	NASDAQ	S&P 500	EURSTOXX	VIX	US Treasury	PAN EUR
Correlation at 30 June 2024	7.04%	15.86%	6.94%	3.62%	9.70%	4.42%	5.90%	7.39%	39.63%	37.05%	22.79%	-32.76%	3.70%	6.58%



Asset Class 3Y Correlation With Bitcoin

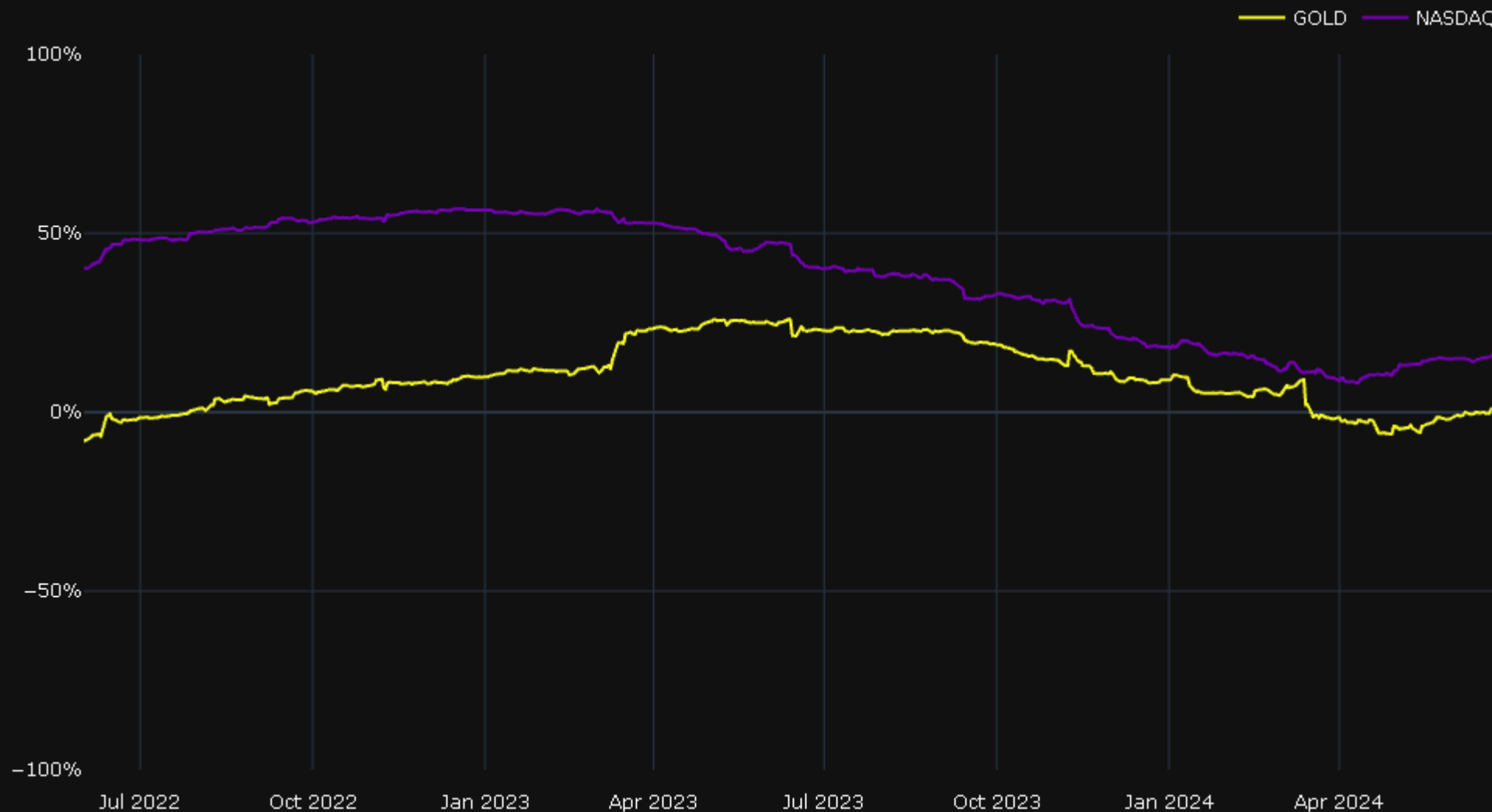
3Y Rolling Window



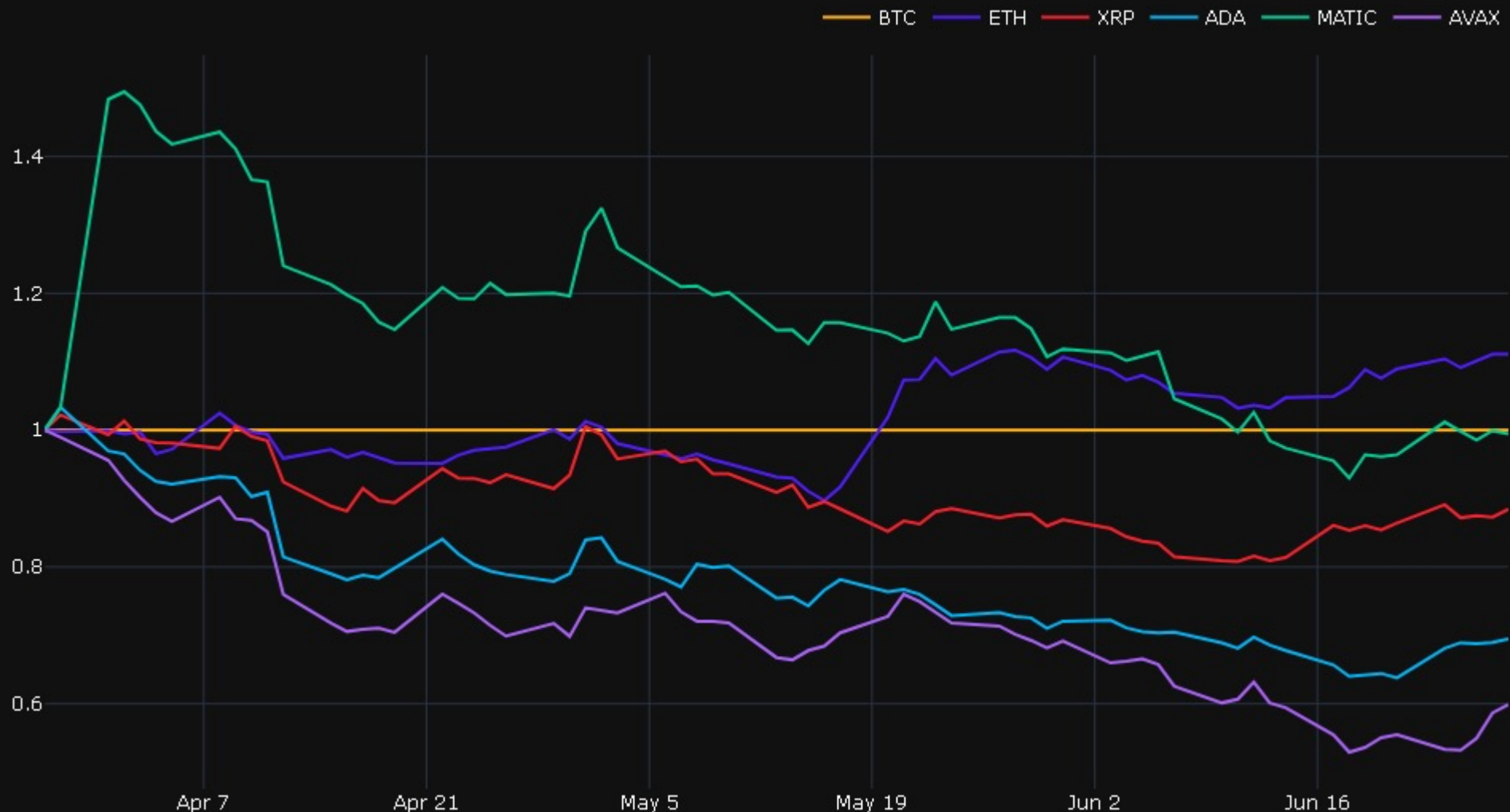
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
Gold/Nasdaq 1Y Correlation With Bitcoin

1Y Rolling Window








Performance Altcoins vs Bitcoin (2024 Q2)



Altcoin	Performance
	11.22%
	-10.98%
	-28.36%
	-37.35%
	-32.96%

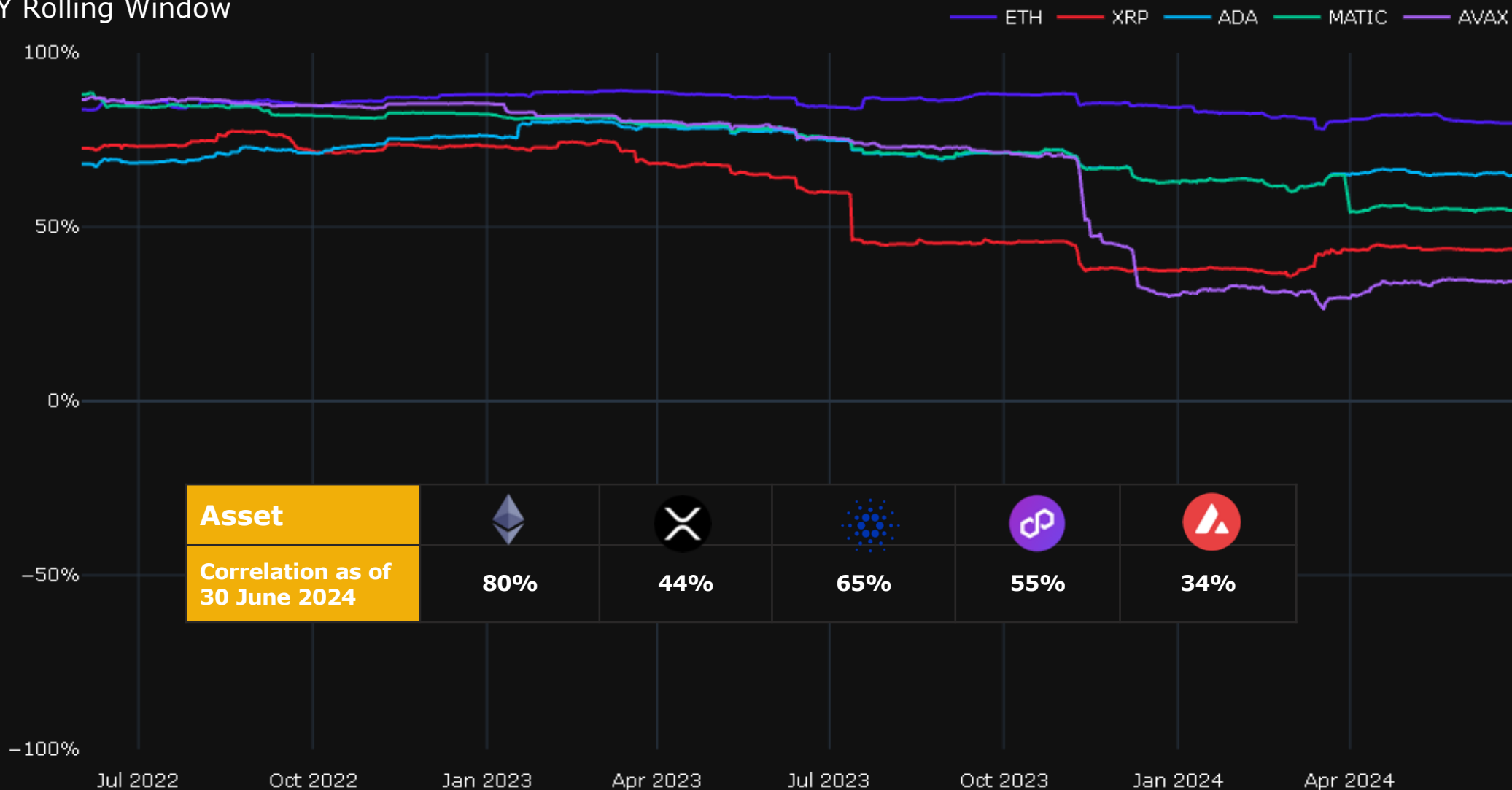
Performance Altcoins vs Bitcoin (Last 12M)



Altcoin	Performance
	-12.18%
	-49.90%
	-32.39%
	8.80%
	-3.62%

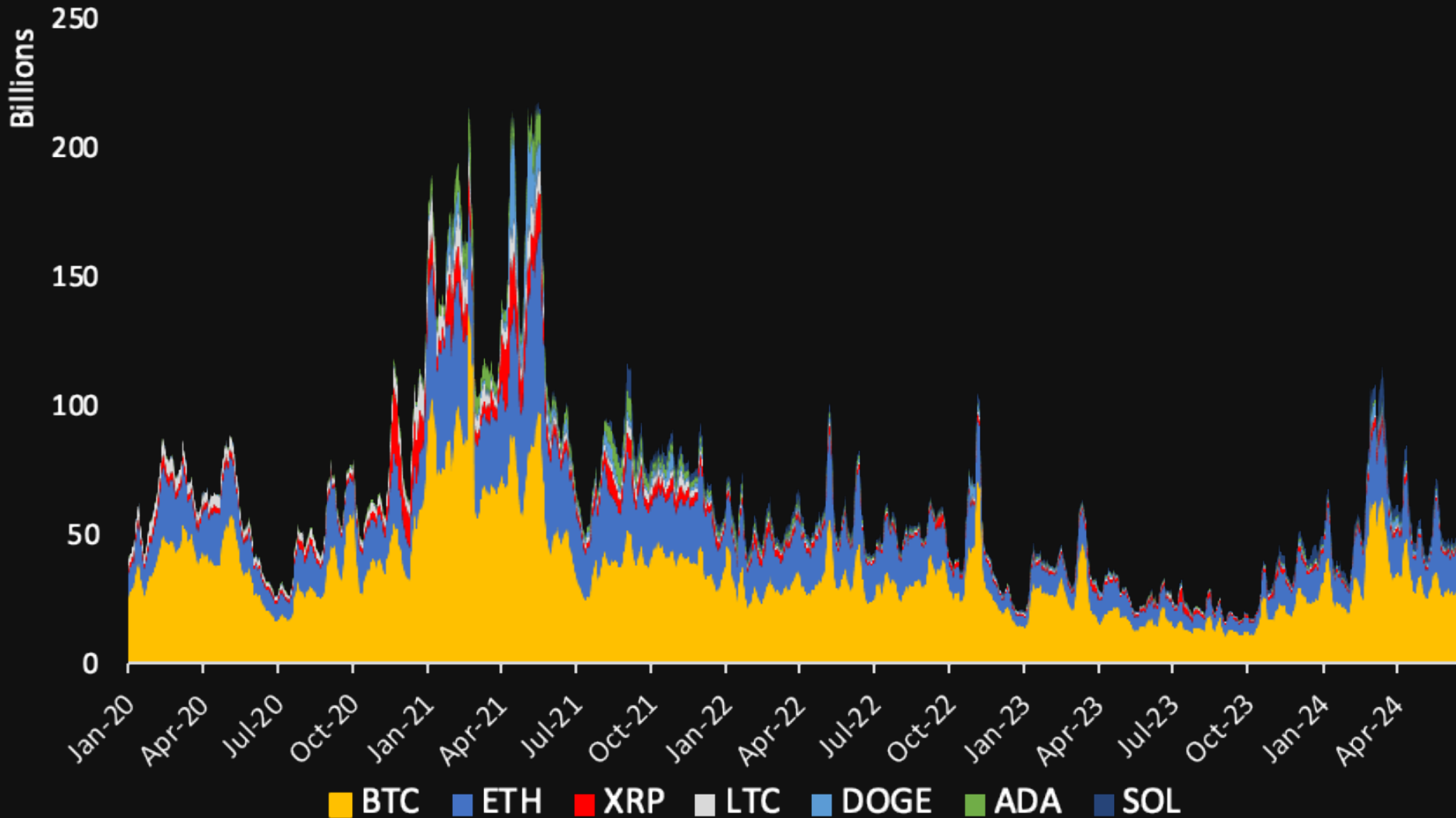
Altcoin 1Y Correlation With Bitcoin

1Y Rolling Window

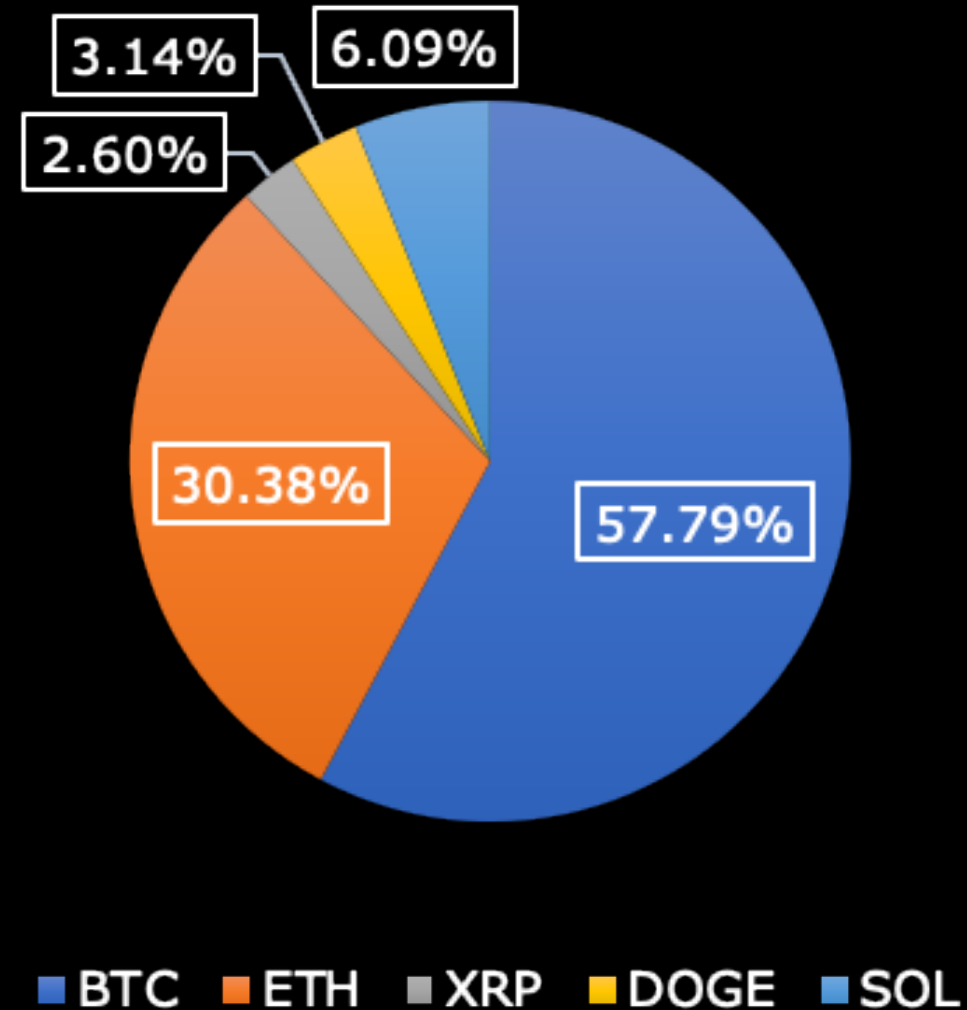


Trading Volume

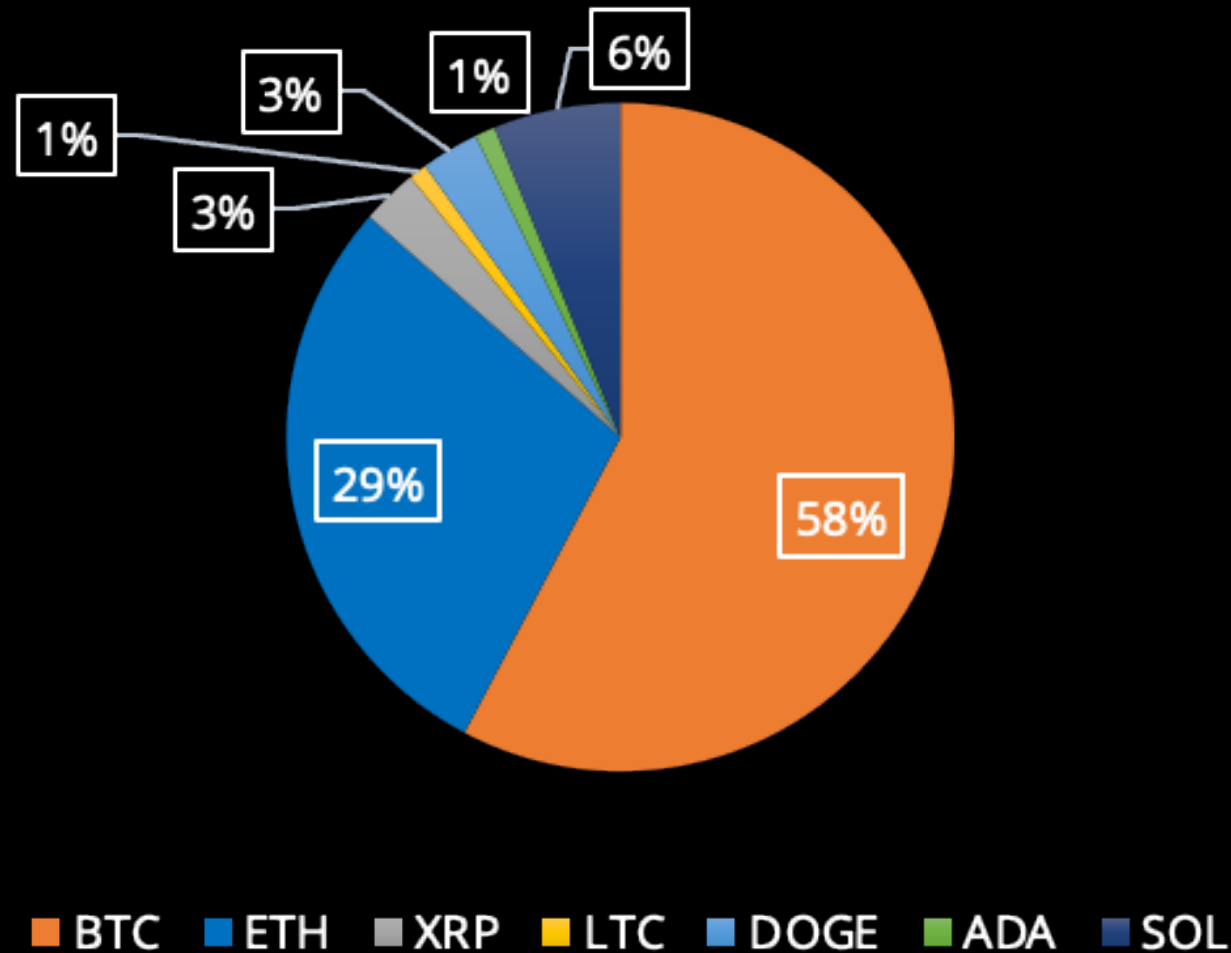
Trading Volume 2020-2024 (in Billions USD)



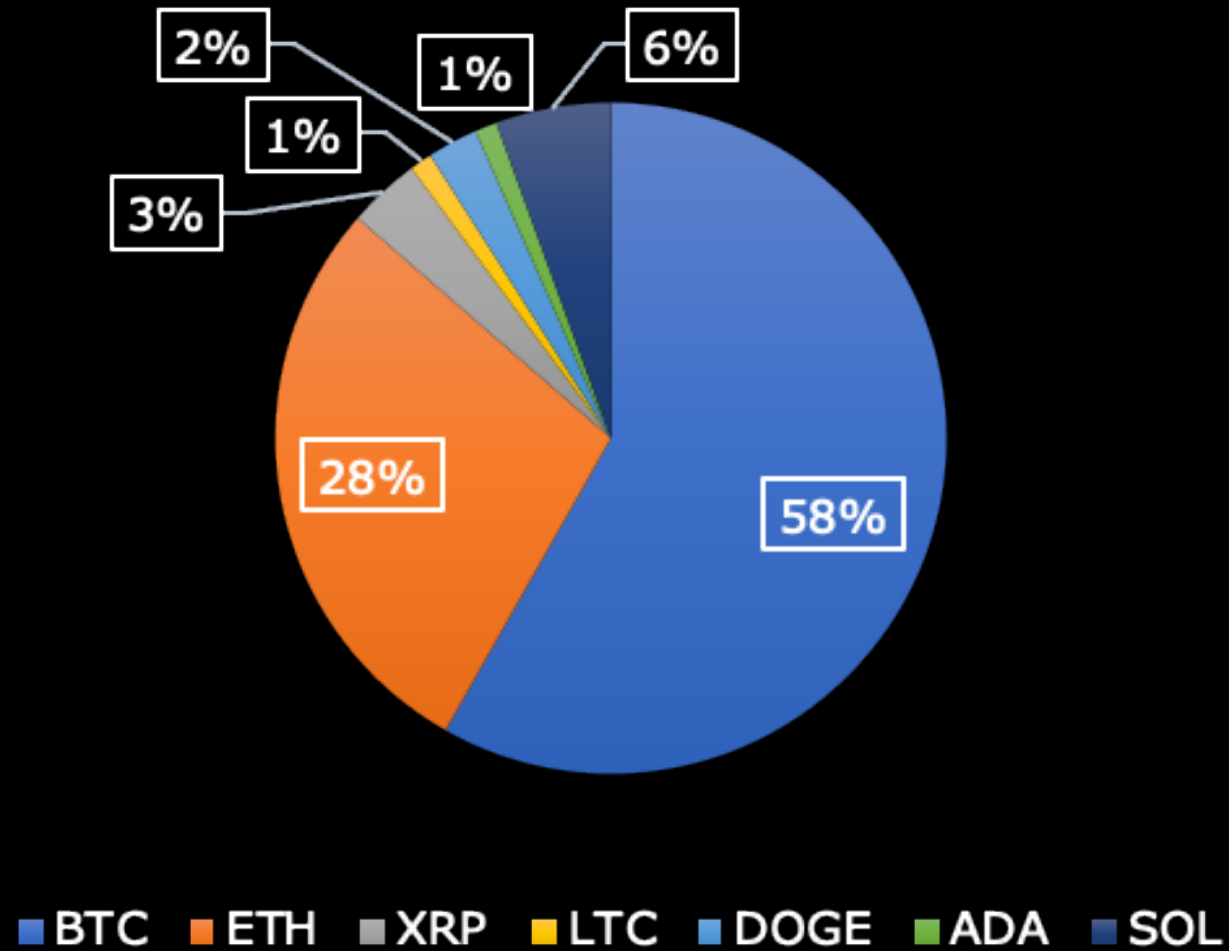
Average Trading Volume Q2 2024



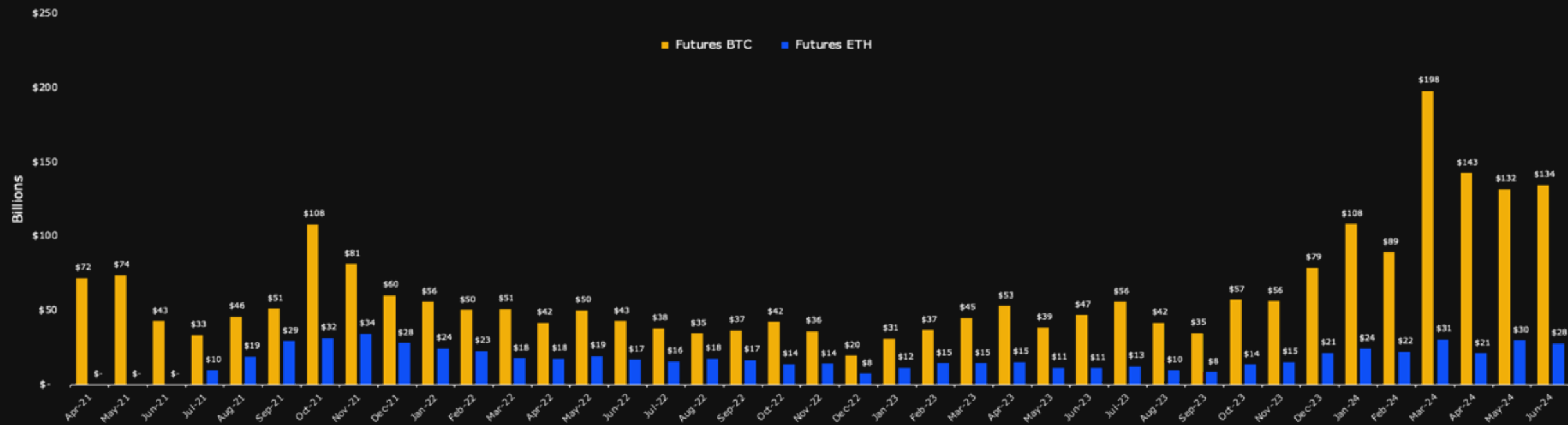
Average Trading Volume YTD



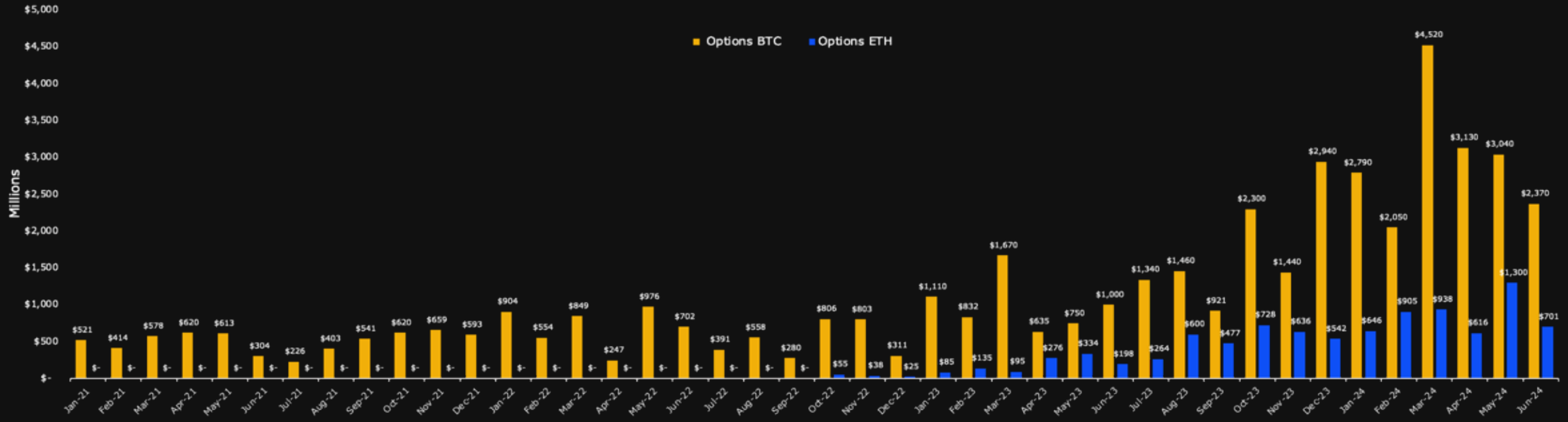
Average Trading Volume Last 12M



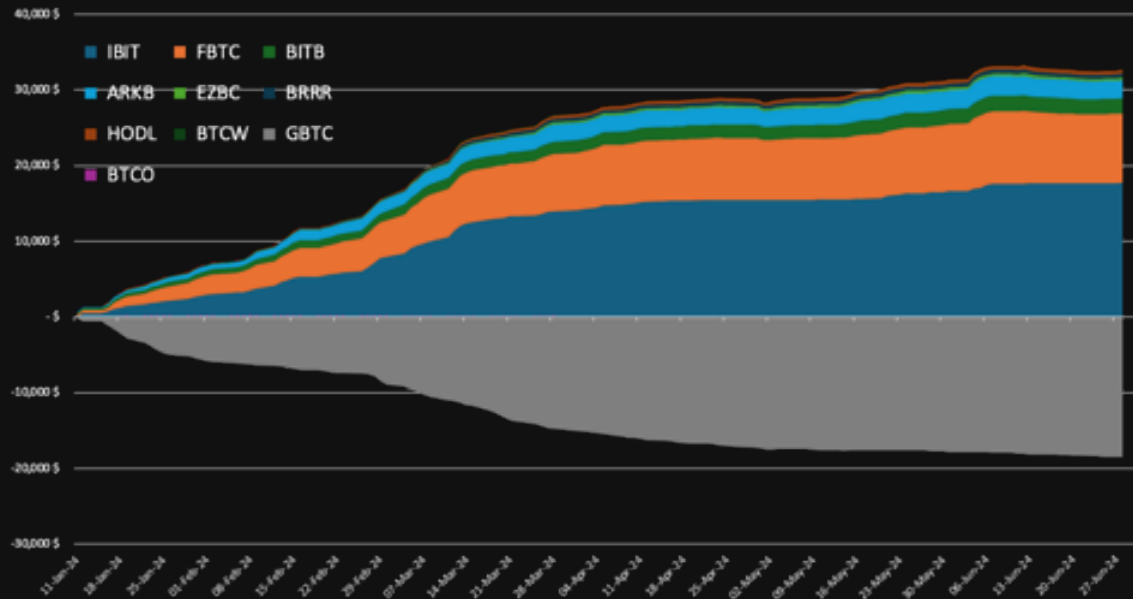
CME Listed Futures



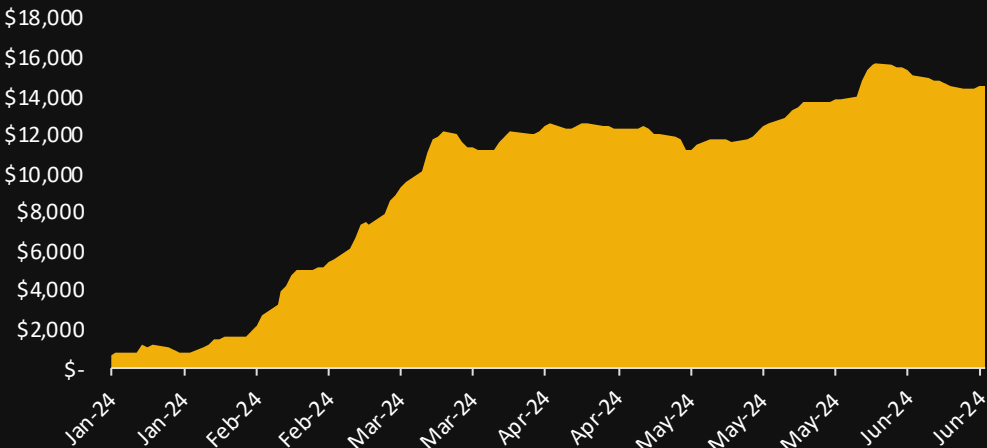
CME Listed Options



ETF



Btc Spot ETF Cumulative Flow



The background is a solid gold color. It features a large, faint, stylized padlock in the center, surrounded by a network of thin gold lines and small dots, suggesting a digital or technological theme. The lines radiate from the padlock and connect various points across the frame.

ECOSYSTEM



Outflows and fears

1. ETF outflows
2. Mt. Gox is set to start distributing recovered assets in July;
after 10 years, it consolidated over 141k BTC, worth USD ~9.8B
3. US and german goverments selling confiscated BTC



US Election: Trump is pro crypto

1. Accepts bitcoin donations; Winklevoss twins and Jessie Powell donated \$1m
2. Advocated for the expansion of BTC mining in the US following a meeting with miners
3. In talks to speak at Bitcoin 2024 in Nashville

The US House voted to reject SEC's crypto accounting guidance, SAB 121: President Joe Biden vetoed the resolution

There is a sheriff in town

1. FTX founder **Sam Bankman-Fried** received a **25-year sentence** for fraud and money laundering
2. **Changpeng Zhao** to serve **4 months in prison** for violating anti-money laundering laws
3. **Terraform Labs settled with the SEC** for USD 4.47B in the aftermath of its 2022 downfall; Do Kwon is settling too
4. **Tornado Cash developer** Alexey Pertsev was **convicted of money laundering** in the Netherlands, receiving 64 months in prison
5. **The founders of Samurai Wallet were arrested** and charged with money laundering and unlicensed money transmitting offences

Julian Assenge has settled too, he's free!



Crypto Institutional Adoption

1. BlackRock Now Runs The World's Largest Bitcoin Fund
2. Standard Chartered is launching a trading desk for BTC and ETH
3. State Street is hiring for its crypto division

The background is a solid gold color. It features a large, faint, stylized padlock in the center, surrounded by a network of thin gold lines and small dots, suggesting a digital or technological theme. The padlock has a keyhole and a series of horizontal lines across its body.

REGULATION



SEC approves Ether ETF

SEC Chair Gary Gensler indicated potential approval for ETH ETFs within three months

ETF will be launched soon

Stablecoins

- Stablecoin issuers are the 18th largest holder of US treasuries, with a combined USD 120B, according to data from Tagus Capital
- Tether and Circle stand out in this grouping, holding about USD 91B and USD 29B in US debt respectively
- ***Tether is not MiCAr compliant***: trading suspended at the end of June



MiCAR implementation in Italy

Italy introduced a decree to strengthen oversight of crypto and impose hefty fines for market abuses

New rules will start to apply on December the 30th 2024, with a transitional regime lasting 12 months

Digital Euro

The European Central Bank released a progress report on the development of a CBDC with a focus on privacy and offline transactions



The background is a solid orange color. Overlaid on it is a faint, stylized graphic. In the center, there is a large, circular, metallic-looking structure resembling a vault door or a complex mechanical component. A prominent padlock is visible on the central part of this structure. Surrounding this central element are various geometric shapes, including lines and dots, that suggest a network or a digital interface. The overall aesthetic is technological and modern.

TECHNOLOGY

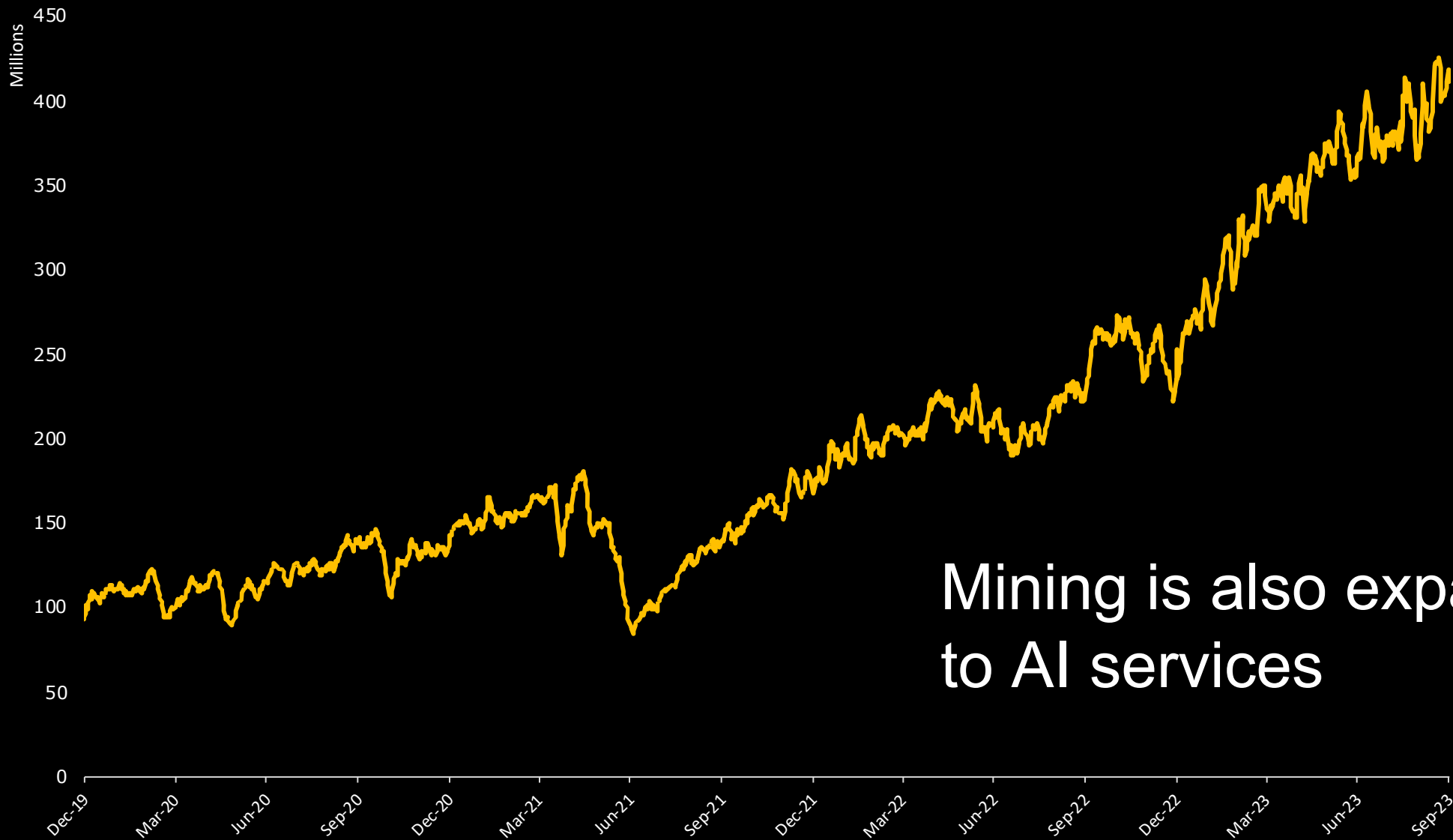


The Halving

- The halving happened on April the 20th
- It had no impact on the asset's price
- Price at the halving: 64100 \$



Mining Hash Rate



Mining is also expanding
to AI services

The background is a solid orange color. Overlaid on it is a faint, stylized graphic. In the center is a large padlock icon. Surrounding the padlock are several concentric circles and a network of lines connecting small dots, suggesting a digital or technological theme. The lines and dots are a lighter shade of orange than the background.

THE INSTITUTE

CryptoWeek: Every Friday at 6PM

Live streaming:

YouTube
Facebook
LinkedIn
Twitter

Also available as
podcast

by CheckSig

CRYPTO
WEEK

Cos'è successo nel mondo
crypto questa settimana?

Venerdì alle 18:00
in live streaming

Con **Ferdinando M. Ametrano**
Amministratore delegato CheckSig
Direttore scientifico DGI

www.checksig.com/it/cryptoweek

DGI Training

Half day of professional training on Bitcoin and Blockchain technology

Saturday July 13 luglio
Tuesday September 10
Tuesday December 10



www.checksig.com/it/individuals/training/basics

Crypto Asset Lab Conference 2025

Crypto Asset Lab is a joint initiative of DGI and University of Milano-Bicocca

Connecting researchers, businesses, regulators and institutions to accelerate knowledge sharing and scientific research in the fields of crypto and digital assets

www.cryptoassetlab.org



5th annual conference
January 2025

Invited Speaker



Nicola Benini

IFA Consulting, founder and CEO

"I cryptoasset come strumenti di decorrelazione nei portafogli di investimento"



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