



Crypto Commentary November

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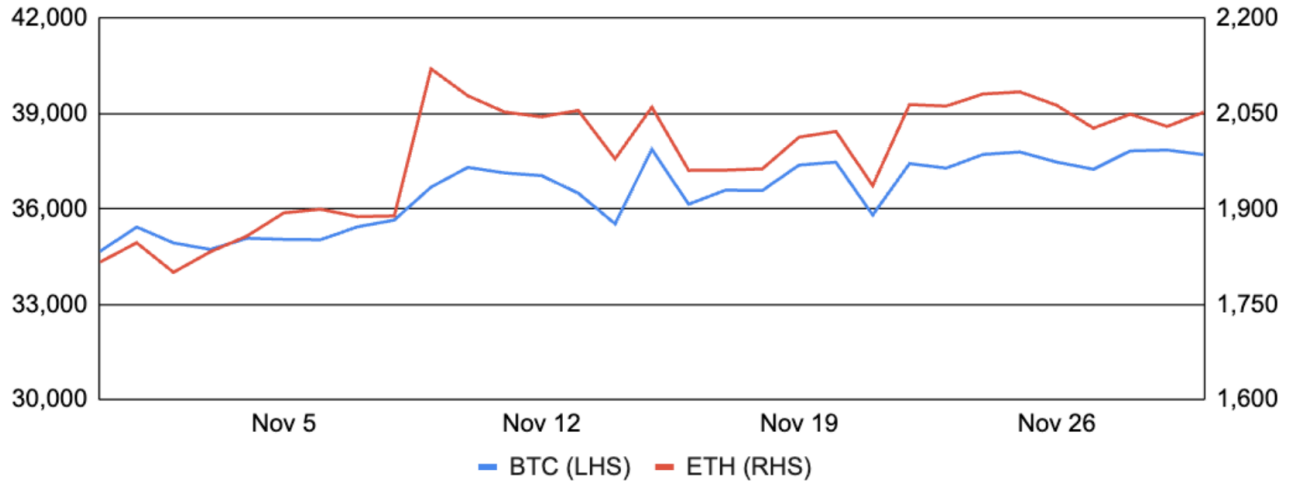
Brian Rudick, Senior Strategist
Matt Kunke, Research Analyst

Bitcoin and Ethereum

Bitcoin gained ~9% during November after entering the month around \$34,700 and finishing at ~\$37,700. Prices rallied during the first third of the month, with the local peak following BlackRock's spot Ethereum ETF filing on the 9th. Bitcoin generally trended sideways during the middle-third of the month but resumed the uptrend after Binance settled with the US Department of Justice, discussed more below. Bitcoin dominance dipped during the month as investors moved out further on the risk spectrum and bolstered the altcoin market. Indeed, the demand for risk extended beyond crypto markets, and equities returned their best month of the year despite their correlation to crypto markets retracing into negative territory. The month featured a resurgence in [Ordinals](#) and BRC-20 activity after Binance listed ORDI, the first-ever BRC-20 token, which gained ~230% during the month and has since doubled again so far in early December. There were also several new mining pools, like DEMAND and OCEAN that came online during the month, discussed more below. Elsewhere, MicroStrategy acquired 16,130 bitcoin for ~\$593m; Tether unveiled a ~\$500m expansion into the Bitcoin mining industry; Mt. Gox's trustee confirmed that creditor repayments will begin in 2023 and extend into next year; and, Javier Milei, a Bitcoin proponent and outspoken critic of Argentina's central bank, was elected to serve as the country's next President.

After lagging bitcoin routinely for several months, Ethereum reversed course and outperformed in November, gaining ~13% after entering the month around \$1,820 and finishing at \$2,050. The month's outperformance stemmed from BlackRock's spot ETH ETF filing and the ~12% one-day return that came alongside it. From a fundamental lens, ETH supply deviated from its recent inflationary trend and net supply fell by 32,000, its largest decline since May. November was packed with new staking announcements and project launches, headlined by the unveiling of the "layer 2" Blast that offers native yield and the much anticipated launch of StakeWise v3, covered more below. In the Layer 2 ecosystem, OKX revealed plans to launch its own zkEVM Layer 2 leveraging Polygon's tech stack, joining the likes of Coinbase (Base), ConsenSys (Linea), and Bybit (Mantle) with affiliated L2s. Kraken is also reportedly searching for a tech partner to deploy an L2, and Celo proposed a framework for selecting amongst the L2 tech providers ahead of its migration. In other Ethereum news: Starknet confirmed an airdrop is coming but noted the eligibility snapshot was already taken; Polygon and NEAR are developing a zkWASM prover that'll enable WASM-based blockchains (e.g., NEAR, Polkadot, Internet Computer) to better integrate with Ethereum; Coinbase rolled out onchain credential verification leveraging the Ethereum Attestation Service; a white hat [security report](#) disclosed a vulnerability at Lido node operator InfStones that could've been exploited for ~1.2% of all staked ETH; and, a mysterious address holding [250k ETH](#) (~\$560m) that's been dormant since the 2014 presale was confirmed to have belonged to LHV Bank founder Rain Lohmus but has since been lost.

BTC and ETH



Source: Santiment, GSR.

Binance Settles with the US Department of Justice

The big news of the month was Binance's settlement with the US Department of Justice, where the exchange admitted to anti-money laundering, unlicensed money transmitting, and sanctions violations. Binance also reached agreements with the CFTC, FinCEN, and OFAC. Under the terms of the agreement, Binance will pay \$4.3b in penalties and forfeiture, completely exit the US, and retain an independent compliance monitor for three years. Further, CZ pled guilty to violating the Bank Secrecy Act and will be sentenced in February. He further stepped down from his position as CEO and is prohibited from having any involvement in Binance for three years. Richard Teng, who was Binance's regional markets head and formerly an Abu Dhabi regulator, was appointed in CZ's place. While the news was initially seen as negative, with BNB immediately falling 13% after the announcement, many commentators eventually proclaimed the settlement was a positive for crypto, as it removes one of the larger negative industry overhangs and additionally offers Binance a fresh start.

Binance Plea Agreement

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UNITED STATES OF AMERICA,
Plaintiff,
v.

BINANCE HOLDINGS LIMITED, d/b/a
BINANCE.COM,
Defendant.

NO. 23-178RAJ
PLEA AGREEMENT

Pursuant to Federal Rule of Criminal Procedure Rule 11(c)(1)(C), the United States of America, by and through the Department of Justice, Criminal Division, Money Laundering and Asset Recovery Section (“MLARS”); the Department of Justice, National Security Division, Counterintelligence and Export Control Section (“CES”); and the United States Attorney’s Office for the Western District of Washington (“the USAO-WDWA”) (collectively the “Offices”), and the Defendant, BINANCE HOLDINGS LIMITED (“BINANCE,” the “Defendant” or the “Company”), by and through its undersigned counsel, and through its authorized representative, pursuant to authority granted by Defendant’s Controlling Shareholder(s), hereby submit and enter into this plea

Source: Department of Justice, GSR.

ETF Developments

While BlackRock’s filing for the [iShares Ethereum Trust](#) was the most notable market moving event, November also featured several other tidbits of information that suggest a spot Bitcoin ETF approval may come in January. The consensus view is that if approval comes, the SEC will promote free-market competition and approve several applications simultaneously as they did recently with the Ethereum Futures ETFs.¹ Bearing this assumption in mind, the SEC delayed Hashdex and Franklin’s spot Bitcoin ETF applications last week, but its decision came uncharacteristically early, about one month ahead of the actual [deadline](#). The most probable theory is that the SEC intentionally delayed these applications early to open a window from January 6th to January 10th where all outstanding applications will fall outside of the SEC’s comment window, presenting an opportunity for the SEC to approve each application simultaneously without granting one issuer a first-to-market advantage. Aligning such a window would be unnecessary for a denial as no implications of favoritism arise for denying one issuer first (i.e., if the SEC were to deny, they’d likely deny each ETF around their respective decision dates). Beyond this speculative reading of the tea leaves, multiple accounts demonstrate [ongoing dialogue](#) between the SEC and issuers about the operational mechanics (i.e., [in-kind vs. cash creations](#)), further

inspiring confidence that a positive decision could be on the horizon. While this theory has gained acceptance amongst many prominent industry analysts, it's important to reiterate that approval is by no means guaranteed. However, we'll know with certainty by January 10th, and [most likely on the 8th-10th](#) as the decision will not come over a weekend.

SEC's Early Delay of Franklin's Spot Bitcoin ETF

Issuer (Ticker)	Ticker	Company	Asset	19b-4 Filed Date	S-1A Filed	First Deadline	Second Deadline	Third Deadline	Final Deadline
Grayscale Bitcoin Trust (Re-file) Conversion	GBTC	Grayscale	Bitcoin	10/19/21	Yes (S-3)	12/23/21	2/6/22	5/11/22	7/6/22
ARK 21Shares Bitcoin ETF (Re-filing)	ARKB	21Shares & ARK	Bitcoin	4/25/23	Yes	6/29/23	8/13/23	11/11/23	1/10/24
iShares Bitcoin Trust	IBTC	BlackRock	Bitcoin	6/29/23	Yes	9/2/23	10/17/23	1/15/24	3/15/24
Bitwise Bitcoin ETP Trust (Re-filing)	BITB	Bitwise	Bitcoin	6/28/23	Yes	9/1/23	10/16/23	1/14/24	3/14/24
VanEck Bitcoin Trust (Re-filing)	N/A	VanEck	Bitcoin	6/30/23	Yes	9/2/23	10/17/23	1/15/24	3/15/24
Wisdomtree Bitcoin Trust (Re-filing)	BTCW	Wisdomtree	Bitcoin	6/30/23	Yes	9/2/23	10/17/23	1/15/24	3/15/24
Invesco Galaxy Bitcoin ETF (Re-filing)	BTCO	Invesco & Galaxy	Bitcoin	6/30/23	Yes	9/2/23	10/17/23	1/15/24	3/15/24
Wise Origin Bitcoin Trust (Re-filing)	N/A	Fidelity	Bitcoin	6/30/23	Yes	9/2/23	10/17/23	1/15/24	3/15/24
Valkyrie Bitcoin Fund (Re-filing)	BRRR	Valkyrie	Bitcoin	7/3/23	Yes	9/4/23	10/19/23	1/17/24	3/19/24
Global X Bitcoin Trust (Re-filing)	N/A	Global X	Bitcoin	8/4/23	Yes	10/7/23	11/21/23	2/19/24	4/19/24
Hashdex Bitcoin ETF Strategy Change	DEFH	Hashdex	Bitcoin	9/22/23	Yes	11/17/23	1/1/24	3/31/24	5/30/24
Franklin Bitcoin ETF	N/A	Franklin	Bitcoin	9/26/23	NO	11/17/23	1/1/24	3/31/24	5/30/24

Source: [Twitter](#), GSR.

Staking Ecosystem Developments

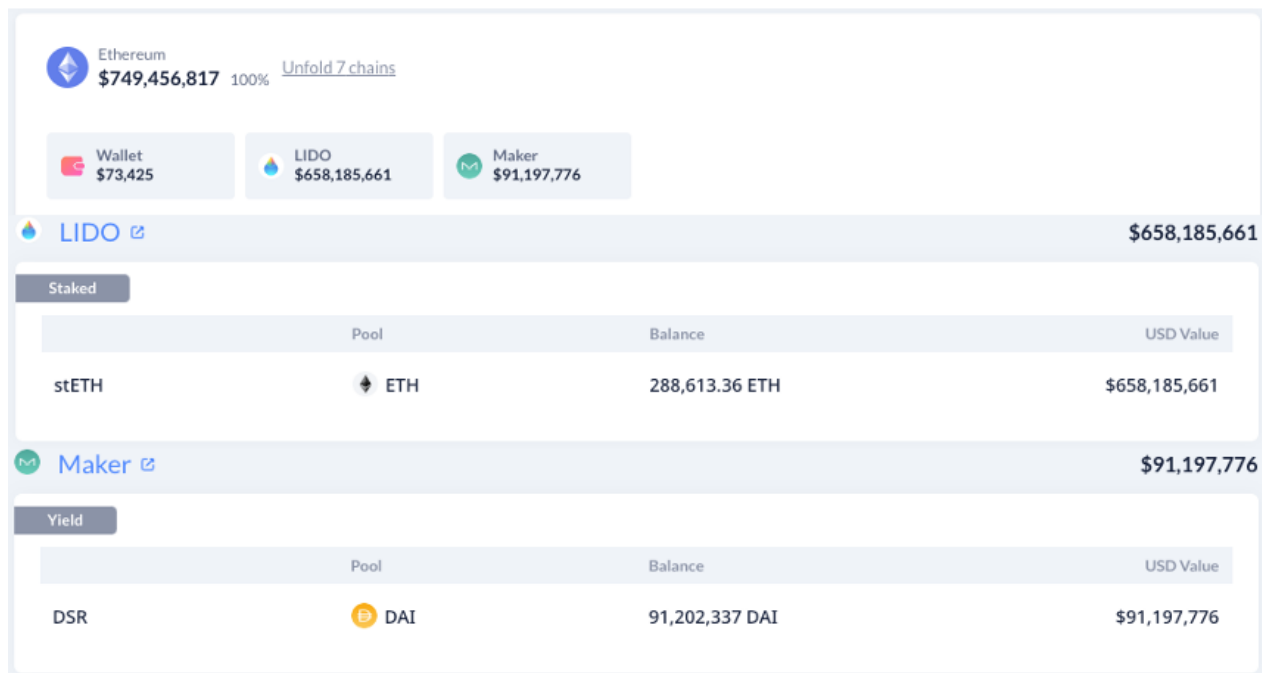
On November 20, the founder of the NFT marketplace Blur [launched Blast](#), a new Ethereum “Layer 2” offering native yield on ETH and stablecoins. Blast’s simple idea is to stake assets bridged to the network on users’ behalf, predominantly through Lido’s stETH (~\$658m) and Maker’s Dai Savings Rate (~\$91m). However, the project has been criticized for a number of reasons. First, Blast does not exist as an L2 today, but rather as a one-way deposit vault secured by a 3-of-5 multisig with anonymous signers. In addition, Blast utilized an influencer-heavy marketing campaign offering ponzi-like referral incentives with promises of an airdrop to spur deposits. Lastly, Blast’s predominant use of Lido as its staking provider of choice has exacerbated [stake concentration concerns](#). Speculation and yield, at least so far, have won out over these criticisms, as Blast has attracted \$750m of deposits and single-handedly flipped all of Solana’s TVL. We’d encourage interested readers seeking a deeper dive

to check out this [thread](#).

The month also featured the launch of [StakeWise V3](#), a potential counterbalancing force to Lido's indirect stake accumulation via Blast. About two years in the making, StakeWise v3 joined Rocket Pool becoming the second decentralized staking protocol that's entirely permissionless on Ethereum. StakeWise v3 introduces a modular staking marketplace that gives stakers optionality to selectively delegate their stake according to their individual preferences. More specifically, it allows anybody to permissionlessly create their own staking vault or pool that stakers can delegate to, and each vault is a unique smart contract with segregated deposits and rewards with bespoke terms uniquely configured by the vault's deployer. Operators can deploy vaults with custom features, including the node operator(s) managing it, infrastructure details (e.g., geography, client mix, redundancy, DVT, MEV usage, etc.), insurance, fees, or even private vaults with negotiated terms for large stakers. Private vaults also enable solo stakers to mint liquidity against their otherwise illiquid operator stake in the form of StakeWise's osETH liquid staking token, and this example can be extended to staking-as-a-service operations more generally. Put simply, StakeWise v3 provides an infrastructure layer simplifying the complexities of staking-as-a-service and liquid staking that enables anybody managing a node to seamlessly sell trustless, non-custodial liquid staking services. In fact, many Lido node operators have launched their own StakeWise vault on the side that allows stakers to delegate to them directly and without Lido's cut of fees (examples [here](#), [here](#), [here](#), and [here](#)).

Elsewhere in the staking ecosystem, [ether.fi's](#) eETH LST went live on mainnet, Mantle unveiled its mETH LST, and Octant announced a collaboration with [Diva Staking](#), committing up to 100k ETH to the protocol to bolster the staking ecosystem's health while funding public goods.

Blast's Deposit Contract Assets



Source: [StakeWise](#), GSR.

Centralization Tradeoffs in Bitcoin Mining

To smooth out revenue and reduce the impact of luck, miners commonly opt-in to [mining pools](#). Such pools enable miners to combine compute resources to mine blocks together as a group, sharing processing power over a network and splitting the rewards based on each miners' contribution to the pool. Typically, the mining pool operator creates the block template that miners in the pool seek to find a valid proof-of-work for, and then block rewards and transaction fees accrue to the pool operator who distributes them to the pool constituents. Such an approach, however, introduces a custodial trust relationship between the miners and the pool operator, and it weakens Bitcoin's censorship resistance by concentrating block creation with the pool operator instead of the individual miners (i.e., miners have no say on what transactions go into blocks). In fact, such concerns came to the fore this month after [F2Pool acknowledged](#) it was filtering out OFAC transactions from the block templates in its pool. To tackle these issues, several new pools went live during the month.

DEMAND launched the first Stratum v2 mining pool that empowers individual miners to build their own block templates, reducing centralization risks versus the current model controlled by pool operators. Notably, DEMAND is not a mining pool in the typical sense today, as it only allows solo miners and it isn't smoothing out variance across them. However, it does offer a hashrate marketplace integration that enables miners to sell their hashrate that similarly mitigates variance implications, albeit in a different fashion. Moreover, DEMAND has plans to launch a more typical pooled mining service in the near future.

The non-custodial OCEAN mining pool also went live, touting its ability to pay block rewards directly to miners instead of being passed through from the pool operator. The OCEAN pool was built by the 'maxi' faction of the Bitcoin community, and unlike with DEMAND, the pool creates the block templates and applies an opinionated view in doing so, filtering out inscription transactions, which it deems as "spam." However, filtering out lucrative inscription transactions from blocks led to about [5-10% lower fees](#) over one observation window.

OCEAN's Transaction Filtering



Source: [Twitter](#), GSR.

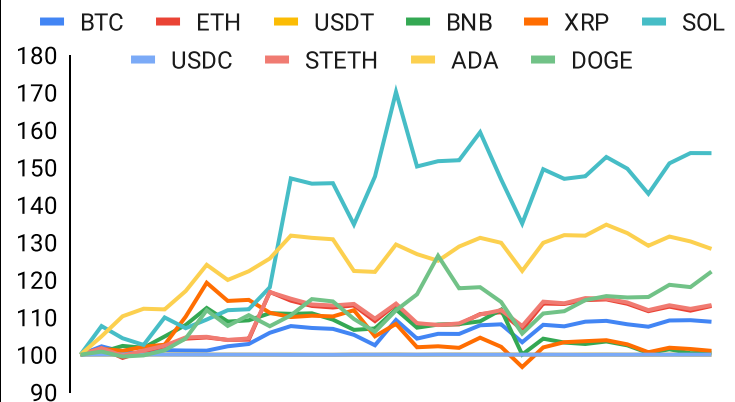
Footnotes:

1. When Bitcoin Futures ETFs were considered for approval in 2021, the SEC allowed applications to go effective automatically at their respective deadline dates under Rule 485(a). This allowed ProShares, who sat at the front of the review queue, to be the first to enter the Bitcoin Futures ETF market before any other competitors were approved to launch, which allowed them to raise ~\$1b more AUM than anyone that was subsequently approved after them. This approach was generally viewed as a mistake in hindsight, and the SEC took steps to enable a more fair launch for Ethereum Futures ETFs this year, and we anticipate they'll do the same for spot Bitcoin ETF.

GSR in the News

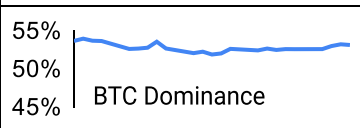
- Fortune - [Bitcoin approaches \\$38,000 and Ethereum crosses \\$2,000 as ETF fever continues to buoy the crypto market](#)
- Straits Times - [Bitcoin's ETF momentum is spurring the biggest monthly gains since January](#)
- The Block - [Crypto derivatives protocol MYX raises \\$5 million in seed round led by HongShan](#)
- Yahoo! Finance - [Bitcoin approaches \\$38,000 and Ethereum crosses \\$2,000 as ETF fever continues to buoy the crypto market](#)
- Bloomberg - [DeFi Rates Signal Rising Leverage in Crypto as Ripple \(XRP\) Leads Alt-Coin Rally](#)
- Forbes - [Why SBF's Favorite Crypto, Solana, Has Doubled Since September](#)
- Blockworks - [CeFi is making the DeFi jump. Will it work?](#)
- CoinDesk TV - [Fed Likely to Be Most Dovish Central Bank in 2024, Research Shows](#)
- Forbes - [Are DeFis High Yields on Stablecoins Worth the Risk?](#)

Crypto Leaderboard

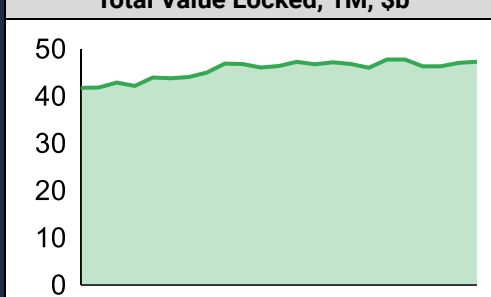
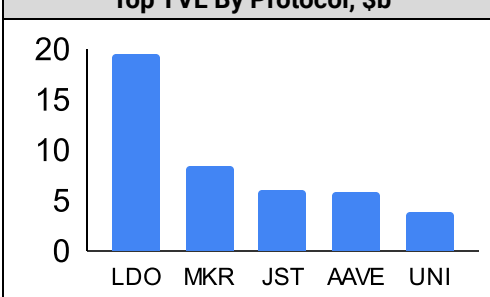
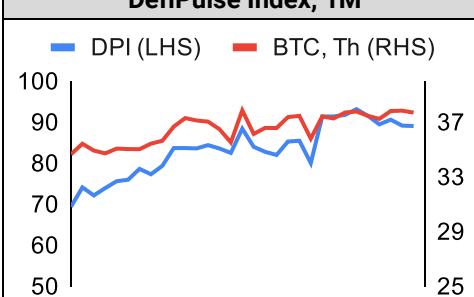
Rank	Name	Ticker	Price	MC, \$b	1M	One Month Performance						
1	Bitcoin	BTC	37,713	738	9%							
2	Ethereum	ETH	2,053	247	13%							
3	Tether	USDT	1.00	89	0%							
4	BNB	BNB	228	35	1%							
5	Ripple	XRP	0.61	33	1%							
6	Solana	SOL	59	25	54%							
7	USD Coin	USDC	1.00	24	0%							
8	Lido	STETH	2,045.52	19	13%							
9	Cardano	ADA	0.38	13	28%							
10	Dogecoin	DOGE	0.08	12	22%							

One-Month Performance

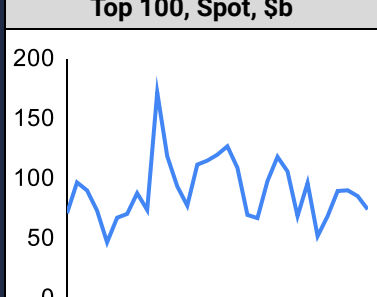
By Token		By Category		By Ecosystem		Traditional Finance	
TAO	253%	CEXs	50%	Cosmos	44%	Nasdaq	10.7%
TIA	196%	DEX	49%	Solana	38%	DAX	9.5%
KAS	150%	Lending	40%	Gnosis Chain	33%	SPX	8.9%
RUNE	135%	Scaling	28%	Avalanche	28%	NIKKEI	8.5%
ILV	116%	IoT/Data/Comp	26%	Polkadot	23%	EUR/USD	2.9%
WEMIX	96%	Gaming/Entertainment	23%	BSC	22%	Gold	2.7%
QNT	-5%	Other DeFi	23%	Polygon	17%	FTSE	1.8%
CFX	-6%	Smart Contract	22%	Tron	1%	HSI	-0.3%
BSV	-8%	Privacy	7%			USD/JPY	-2.3%
BCH	-10%	Currency	1%			WTI	-6.2%
RLB	-15%	Meme	-2%			Gas	-21.6%



Defi

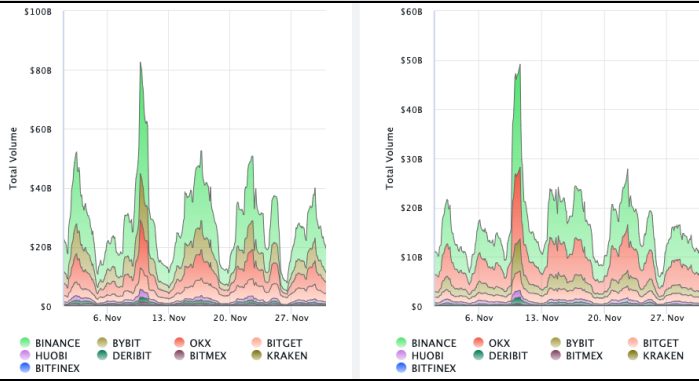
Total Value Locked, 1M, \$b	Top TVL By Protocol, \$b	DefiPulse Index, 1M
		

One-Month Trading Volumes

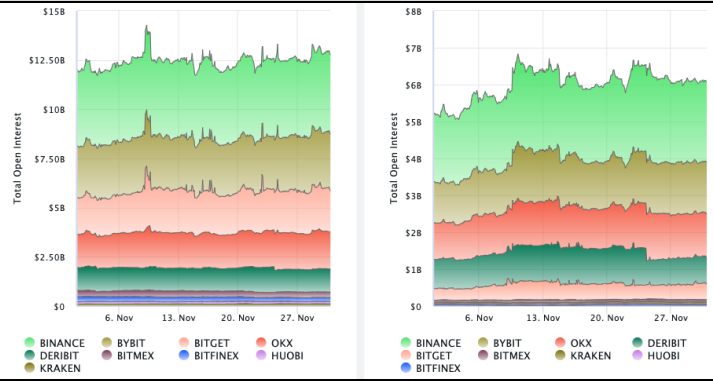
Top 100, Spot, \$b	Top Spot by Token, \$b	Top Spot Exchanges, \$b	Aggregate Derivs Vols, \$b																																														
	<table border="1"> <tr><td>USDT</td><td>1,148</td></tr> <tr><td>BTC</td><td>571</td></tr> <tr><td>ETH</td><td>316</td></tr> <tr><td>USDC</td><td>140</td></tr> <tr><td>SOL</td><td>66</td></tr> <tr><td>FDUSD</td><td>53</td></tr> <tr><td>XRP</td><td>48</td></tr> </table>	USDT	1,148	BTC	571	ETH	316	USDC	140	SOL	66	FDUSD	53	XRP	48	<table border="1"> <tr><td>Binance</td><td>310</td></tr> <tr><td>Upbit</td><td>91</td></tr> <tr><td>OKX</td><td>60</td></tr> <tr><td>Bybit</td><td>57</td></tr> <tr><td>Coinbase</td><td>50</td></tr> <tr><td>Huobi</td><td>46</td></tr> <tr><td>Gate.io</td><td>32</td></tr> </table>	Binance	310	Upbit	91	OKX	60	Bybit	57	Coinbase	50	Huobi	46	Gate.io	32	<table border="1"> <tr> <th></th> <th>1M</th> <th>O/I</th> </tr> <tr> <td>Spot</td> <td>866</td> <td>na</td> </tr> <tr> <td>Perpetuals</td> <td>5,570</td> <td>95</td> </tr> <tr> <td>Futures</td> <td>11</td> <td>1</td> </tr> <tr> <td>Options</td> <td>43</td> <td>na</td> </tr> <tr> <td>Total</td> <td>6,490</td> <td>96</td> </tr> </table>		1M	O/I	Spot	866	na	Perpetuals	5,570	95	Futures	11	1	Options	43	na	Total	6,490	96
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Crypto Futures

Futures Volume (BTC LHS ; ETH RHS), 1d



Futures Open Interest (BTC LHS ; ETH RHS)



Volume Weighted Funding Rate (BTC LHS ; ETH RHS), 1d

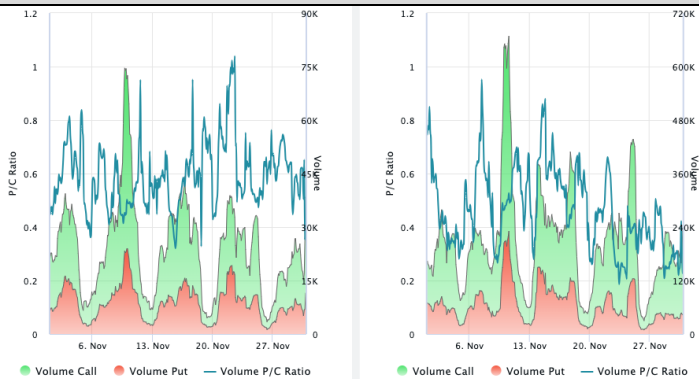


Liquidations (BTC LHS ; ETH RHS), 1d

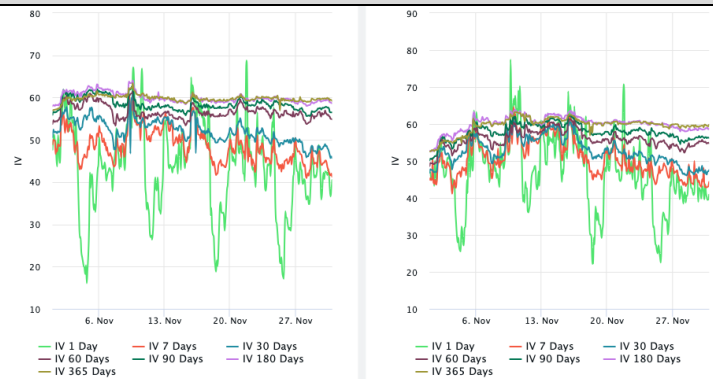


Crypto Options

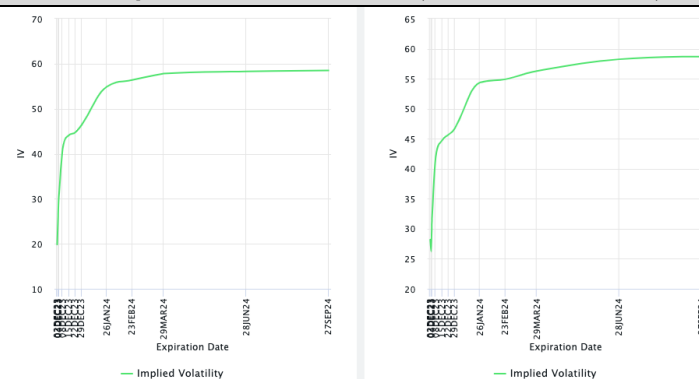
Options Volume & Put/Call Ratio (BTC LHS ; ETH RHS), 1d



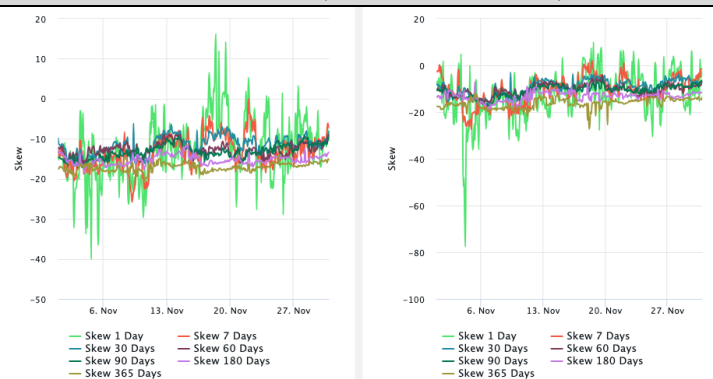
ATM Implied Volatility (BTC LHS ; ETH RHS)



ATM Implied Vol Term Structure (BTC LHS ; ETH RHS)



25 Delta Skew (BTC LHS ; ETH RHS)





November Market Update

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	Laevitas	Amberdata	CoinGlass	