March 2022

War & inflation

The New Digital Investor

Redefining Finance for the New Economy

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Executive summary

Last month, digital asset prices have been hit twice. First, the rise of inflation coupled with rising expectation of a first Fed hike mid-March negatively impacted the price of bonds, and risky asset expectation of crypto market was highly volatile and positively correlated with global equities. The current geopolitical situation between Russia and Ukraine only increased the uncertainties and presents opportunities for crypto to be both positive and negative.

On the positive side is crypto donation campaigns for Ukraine forces and the ability for Russian citizens to protect their assets against the falling price of their fiat currency. While on the negative side, crypto presents a tangible way around for the Russian government and officials to evade the sanctions imposed by several western countries. Therefore, limiting the ways to end this war early.

Bitcoin continues to be the leading asset with more than 40% market dominance and expands its adoption through corporate, institutional, and nation-state treasuries. Bitcoin scaling solution lightning network is growing exponentially, and more and more Bitcoin is being locked on smart contract platforms to use as collateral for lending and borrowing.

Technical indicators (NVT, MVRV) for payment chains show their valuations as cheap and thus offer an excellent opportunity to accumulate. Ethereum continues to be the most extensive NFT ecosystem, followed by Solana. DeFi TVLs are decreasing, and most projects are taking the route of being multi-chain to sustain their growth.

Table 1: Performance of SEBAX® and SEBA Bank universe assets as of 01 March 2022

Days	SEBAX®*	BTC	LTC	XLM	ETH	ADA	DOT	UNI	YFI	SNX	AAVE	LINK
365	-5%	-13%	-36%	-54%	86%	-26%	-47%	-59%	-38%	-80%	-62%	-45%
180	-35%	-13%	-38%	-46%	-23%	-68%	-41%	-65%	-45%	-67%	-64%	-50%
90	-40%	-24%	-46%	-40%	-36%	-38%	-49%	-50%	-26%	-44%	-42%	-41%
60	-24%	-7%	-23%	-27%	-21%	-27%	-29%	-39%	-35%	-25%	-43%	-23%
30	-3%	14%	4%	0%	12%	-8%	4%	-3%	-10%	-22%	-3%	-15%

* SEBAX® Index
Source: SEBA Bank, Coin Metrics

In this edition of the Digital Investor, we discuss bitcoin, its correlation with equities over the past few months, critical use cases for Bitcoin, and the lightning network growth. Further, we talk about the leading smart contract platform, Ethereum, alternate platform chains, and will end with the overview of the Decentralised Finance (DeFi) ecosystem.

1. Introduction

Inflation and war have brutally invaded investors' vocabulary. These two developments add up and draw a sombre picture where macroeconomic uncertainty combines with the worst of geopolitics.

Unsurprisingly, financial assets, whether traditional or digital, have all followed the same direction, until 28 February. In the last day of February, The SWIFT international payment system excluded Russia from its platform, isolating the Russian financial system from the rest of the world. The financial consequences have been as quick and brutal as the invasion of Ukraine. The Russian Ruble lost a third of its value, the Russian central bank stepped in, increase the policy rate to a staggering 20% and imposed capital control. The logical consequence is sharp rise in prices of all goods and services and a dramatic loss in purchasing power of the Russian population.

The most intriguing development is the rise in bitcoin price on 28 February. It decorrelated from risky assets for the first time after months of co-movements with global equities. The question everyone has in mind is whether bitcoin finally reveals its unique nature of censorship-resistant digital gold?

February has been a very volatile month for the crypto markets. Bitcoin and other digital asset prices rose for the first two weeks of the month by more than 15% and sharply fell back to the month starting levels in the third week. The rising tension between Russia and Ukraine have been the main reasons for extreme volatility.

The leading crypto asset, bitcoin, fell by more than 5% within hours of Russia announcing a 'special military operation' on 24 February 2022. Global stock markets also dropped on the given day. We discussed the potential impact of this situation on the crypto markets in the short to near term future in last week's Crypto Market Monitor.

North America, the European Union, the United Kingdom, and Canada have come together to impose sanctions and restrict Russian financial institutions from accessing the global economy, including ejection from parts of the SWIFT international payments system. This led to the fall of Russia's fiat currency, Ruble, and there is a significant surge in bitcoin and USDT trading against Rubel, at nine-month and eight-month all-time high volumes, respectively, as reported by CoinDesk.

Cryptocurrencies offer a parallel payment system and the question whether Russia uses cryptocurrencies to evade sanctions is open. To address this concern, Ukraine's minister of Digital Transformation called on crypto exchanges to block addresses of all Russian and Belarusian, whether politicians or common users. But major exchanges, including Binance, Kraken, and Coinbase, have denied the request to block Russian crypto users, citing the fact that this stands totally against the ethos of why crypto exists and lack of legal requirements to do so. Following this, Ukraine is planning to issue legal demand on crypto exchanges to freeze Russian accounts, as reported by The Block.

On the flip side, the Ukrainian government is accepting crypto donations in BTC, ETH, DOT and USDT through addresses made public on their Twitter account and using it to purchase critical supplies. So far, more than USD 40 million has been donated through crypto, and most of it has already been spent on supplies.

2.
Bitcoin

The crypto market reached an all-time high (ATH) market cap of almost USD 3 trillion in November 2021. As the market leader, bitcoin captured more than one-third of the market, maintaining its dominance at 40% plus, followed by the popular smart contract platform Ethereum, at market dominance of 18% plus. Almost all major crypto assets in the top 100 list by a market cap made their respective ATH during the same period. Given the expectation adjustment phase leading to the pricing of several rate hikes by the Fed to curb rising inflation, crypto market prices fall. While the start of the war in Ukraine has reopened the question of what the Fed will do mid -March – US yield have stopped increasing – cryptocurrency prices are still far from reaching those levels again.

In 2021, the rise of alternate platform chains and meme coins dominated the market and generated outsized returns on investment. The oldest blockchain, bitcoin, generated moderate returns compared to smart contract platform Ethereum and its competitors. But given the downfall of prices in the past four months, bitcoin has fallen the least, showing its resilience in the market, only to be followed by Ethereum. These two have lost less than 40% of their value from ATH, whereas other assets have lost more than 65% of their value from ATH. This indicates the importance of long-term survival in the market and hints investors to stick with probably the simplest but most tested networks.

Table 2: Drop from all-time high prices for crypto assets in SEBA Bank universe

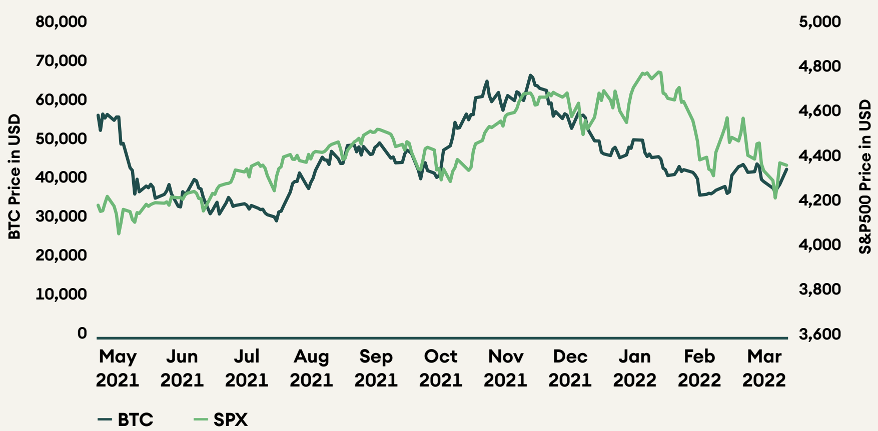
Date	BTC	LTC	XLM	ETH	ADA	DOT	UNI	YFI	SNX	AAVE	LINK
Current Prices (28-02-22)	43,179	113	0	2,914	1	19	10	21,489	4	145	15
All-Time High (ATH)	67,542	385	1	4,811	3	54	44	80,555	27	627	52
Drop From ATH	-36%	-71%	-78%	-39%	-68%	-65%	-76%	-73%	-85%	-77%	-71%
Days Since ATH	112	296	1,520	112	182	116	304	295	382	288	296

Source: SEBA Bank, Coin Metrics

Correlation with Equities

Bitcoin price has been closely correlated with global equities for the past few quarters. This was not the case a year ago, but as Bitcoin is getting more popular and a household name, its price movement is becoming like a traditionally high-risk asset class of equities. Given the rising inflation and increasing interest rate scenario, investors have become cautious about growth stocks and want to allocate funds to value plays. Bitcoin is still categorised as a high-risk asset, but its narrative seems to be shifting towards a must-have allocation in the portfolio asset.

Figure 1: Bitcoin and S&P 500 correlation has been consistent since the last few quarters



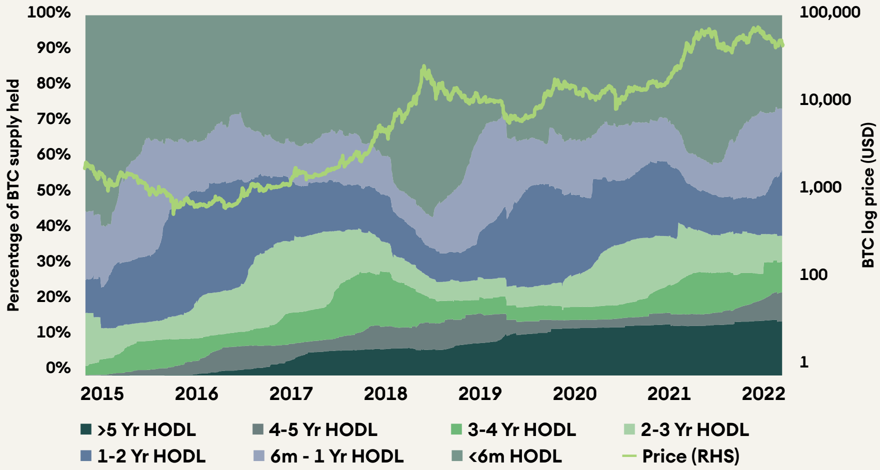
Source: SEBA Bank, Skew

Adoption

Let us briefly look at the most common Bitcoin use cases and some of the on-chain metrics that indicate adoption on a larger scale. The most popular Bitcoin use case is cross-border remittance, the global remittance market is more than USD 700 billion, and the digital remittance market is only growing. The second most popular Bitcoin use case is store of value or, as some people like to call it, digital gold. This includes not only individuals but also corporate's treasuries, institutional investors, and nation-state treasuries. The last few use cases that have gained more popularity in the past couple of years are bitcoin as an economic settlement network, bitcoin as a seizure-resistant asset for global HNIs, and as currency or legal tender in emerging economies. Each of these use cases is increasing adoption and thus will continue to accrue value for bitcoin.

The bitcoin HODL wave chart below shows that accounts holding bitcoins for more than five years have continued to grow steadily. Accounts holding bitcoin for less than six months increased during the start of 2021, as prices increased, and now they are decreasing for the past few months as the price volatility has increased. Important to note that most use cases of Bitcoin described above requires or incentivises entities or individuals to hold Bitcoin for the long term, which is clear from the HODL wave chart.

Figure 2: Bitcoin HODL wave shows an increasing number of long-term HODLers

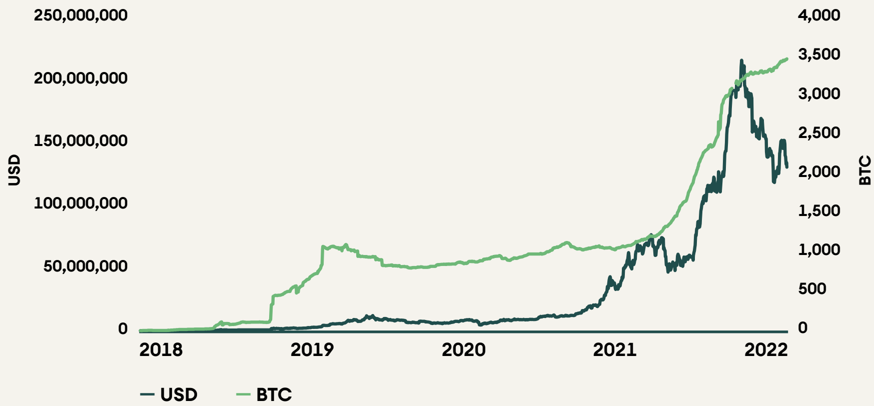


Source: SEBA Bank, Coin Metrics

Bitcoin Scaling

Even though bitcoin has limited functionality at the base layer, it also is scaling with the help of network upgrades (soft fork implementations) like Taproot, which improved the transaction privacy and efficiency of network transactions. Further, a second layer payment protocol built on Bitcoin, called the Lightning Network, saw exponential growth. As can be seen in the chart below, the network capacity increases as more lightning nodes and channels are being set up.

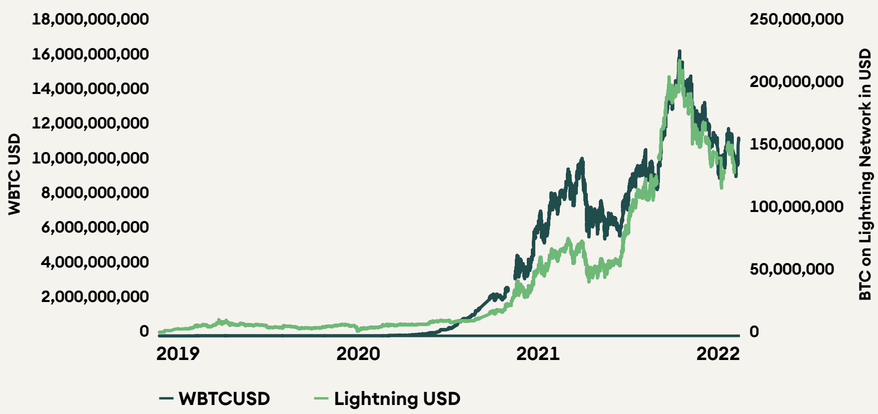
Figure 3: Lightning Network Capacity Growth



Source: SEBA Bank

The third way to Bitcoin scaling or to make Bitcoin an essential aspect of Decentralised Finance (DeFi) is by wrapping BTC on other networks. Since most of the DeFi activity happens on Ethereum, almost 1.5% of total bitcoin in circulation is wrapped on Ethereum in the form of WBTC, HBTC, renBTC, and sBTC. This BTC supply is used as collateral to borrow and lend assets in DeFi. As new DeFi ecosystems continue to flourish, more BTC will be locked in different new platforms, making it the reserve currency of the crypto ecosystem. The growth of lightning network capacity and channels will ensure that more people are able to make seamless payments within seconds using the Bitcoin blockchain.

Figure 4: Amount of BTC Locked in Ethereum vs in the Lightning Network



Source: SEBA Bank, Skew Analytics

3.
Alternative Payment Chains

The network value to transaction value (NVT) ratio is a fundamental valuation tool to compare payment chains. It compares the market capitalisation to the value settled on-chain. A low NVT ratio signifies a cheaper valuation and vice versa. NVT for BTC hit a 1-year low in January and currently trades at 55. LTC and ETH also trade at reasonable valuations of 41 and 45. XLM continues to be expensive at an NVT of 220.

Figure 5: BTC, ETH, and LTC are trading at cheap NVT ratios

Source: SEBA Bank, Coin Metrics

Market value to realised value ratio (MVRV) shows the degree of profitability of the holders of payment coins. It compares the current market capitalisation to the sum of the value of all native coins when they were last moved on-chain. MVRV ratio is a behavioural indicator with a high MVRV ratio signifying that holder enjoy a higher degree of profit and are likelier to sell. With depressed prices, it is no surprise that MVRV ratios for all chains also indicate a low degree of profitability for the holders. Holders of LTC are in losses on aggregate with an MVRV ratio of 0.9. Ethereum hit a yearly low for its MVRV and currently trades at 1.5. It is followed by XLM and BTC at 1.4 and 1.7, respectively.

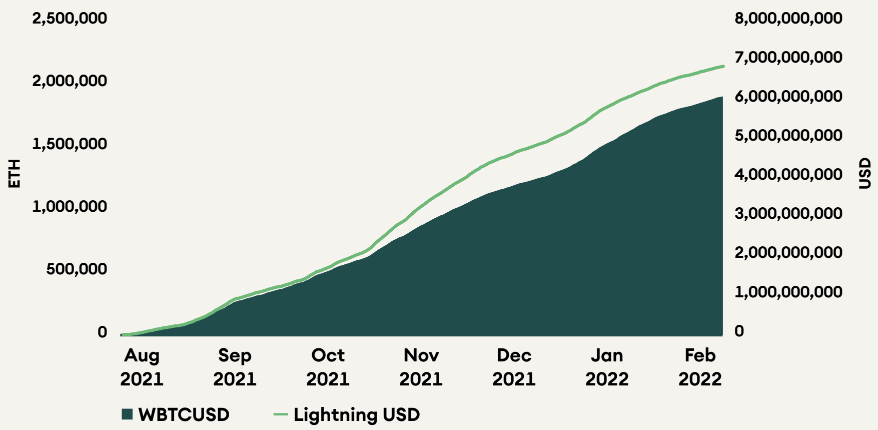
Figure 6: Low MVRV ratios for all chains show a low degree of profitability for the holders

Source: SEBA Bank, Coinmetrics

4.
Ethereum

Ethereum, in its current state, has limited scalability with low transaction throughput and high transaction costs. Users expect a major Ethereum upgrade in 2022 that turns it from proof-of-work (PoW) to proof-of-stake (PoS). After the migration of PoS is complete, Ethereum will be a scalable and formidable blockchain. A part of its transition was EIP 1559, implemented in August 2021. EIP 1559 changed Ethereum's monetary policy and switched to burning the base fee paid to the miners. After its implementation, approx. 1.92 million ETH tokens are burnt, or an equivalent amount of USD 7 billion. Burning the base fee has reduced the net issuance of ETH tokens by 69%. After the merge is complete, the net issuance may drop by 90%, and Eth will become a deflationary asset. This has led to some believing that ETH is 'ultrasound money'.

Figure 7: Ethereum Burn Status



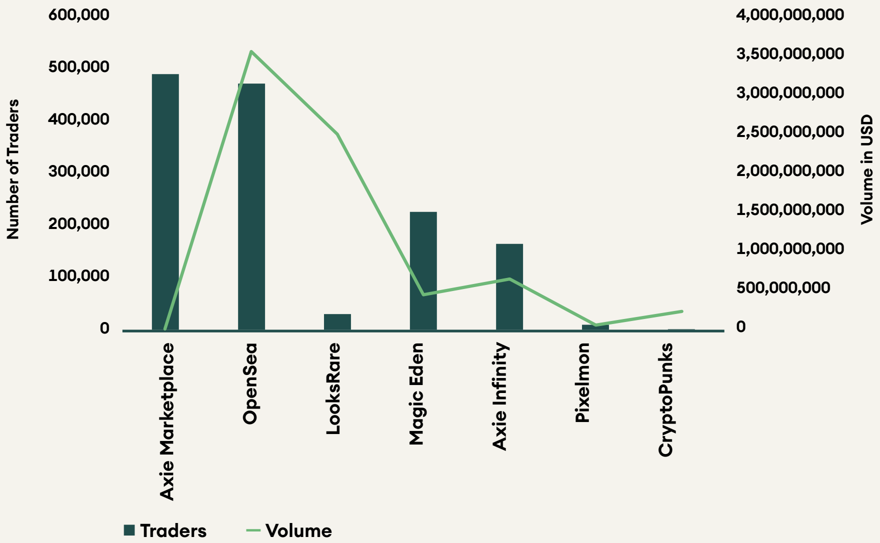
Source: SEBA Bank, Etherscan

Although the entire crypto market has trended downward until recently, Ethereum shows a net positive return of 86% in 365 days. Ethereum blockchain has an annualized revenue of USD 11 billion and 1.1 million daily transactions despite high fees. Ethereum scaling solutions are gaining traction by integrating with major DeFi players like Aave, Curve, and Uniswap. As a result, gas costs on Ethereum have dropped by 70% as users are bridging their assets to layer 2 protocols. In 2022, we might see even greater adoption of Layer-2s as they have enabled the users to access Ethereum network by paying low fees.

Non-Fungible Tokens (NFTs):

Among Non-fungible tokens, Opensea marketplace continues to lead at the 1st position with the highest number of monthly users at 450K and highest trading volume of USD 3.5 billion. Solana's NFT marketplace platform, Magic Eden, has garnered USD 500 million in trading volume. Ethereum dominates the NFT and Gaming industry with more than USD 6.5 billion in monthly trading volume.

Figure 8: NFT & Gaming 30 Day Performance



Source: SEBA Bank, DappRadar

5.
Alternative Platform Chains

The current batch of Polkadot parachain auctions is almost concluded, with only one auction in the second round remaining. It will happen from 3rd March to 10th March 2022. All parachains raised a total of more than 140 million DOT (USD 2.6 billion) to date. Only the first five parachains are live on the network, and the rest will go live on 11 March 2022. Crowdloan contributors have made decent returns on the DOT staked, but it remains to be seen how these parachains will attract users and create a sustainable ecosystem.

Table 3: Auction winning parachains and the funds raised

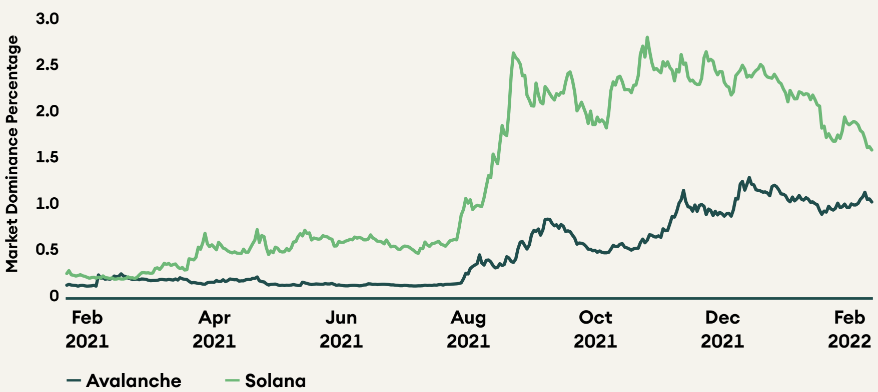
	Project	Funds Raised	Contributors	Rewards
1	**Moonbeam**	35 m DOT (USD 576 m)	48000+	4+ GLMR
2	**Acala**	32 m DOT (USD 524 m)	24000+	4.61+ ACA
3	**Parallel Finance**	10 m DOT (USD 173 m)	4000+	93+ PARA
4	**Astar**	10 m DOT (USD 166 m)	27000+	102+ ASTR
5	**Clover Finance**	9 m DOT (USD 157 m)	5,000+	20+ CLV
6	**Efinity**	7 m DOT (USD 124 m)	8000+	26+ EFI
7	**Composable Finance**	6 m DOT (USD 97 m)	9000+	2.6+ LAYR
8	**Centrifuge**	5 m DOT (USD 87 m)	15000+	12+ CFG
9	**HydraDX**	2.4 m DOT (USD 39 m)	5000+	12.5+ HDX
10	**Interlay**	2.7 m DOT (USD 51 m)	11000+	3.46+ INTR
11	**Equilibrium or Nodle**	2 m DOT (USD 40 m)	-	-

Source: SEBA Bank, Parachains.info

Among the new layer one blockchains, some are competing to solve the blockchain trilemma by offering faster transaction speed and thus scalability along with enhanced security at the cost of decentralisation. While some other platforms are trying to become the interoperability hub that enables the creation of application-specific blockchains, that they can seamlessly communicate with each other to operate efficiently.

Polkadot and Avalanche are creating the interoperability ecosystem while being EVM compatible, and Solana is just trying to build a blockchain for faster financial transactions. EVM compatibility can lead to faster application development and high growth user adoption, but the number of developers on the Solana network are more than the other two. Solana's market dominance and TVL have slightly impacted, given the repetitive network downtime and hacks in past several months. Despite that, Solana continues to have more market share than Avalanche or Polkadot.

Figure 9: Market dominance of alternate smart contract platforms – Avalanche and Solana

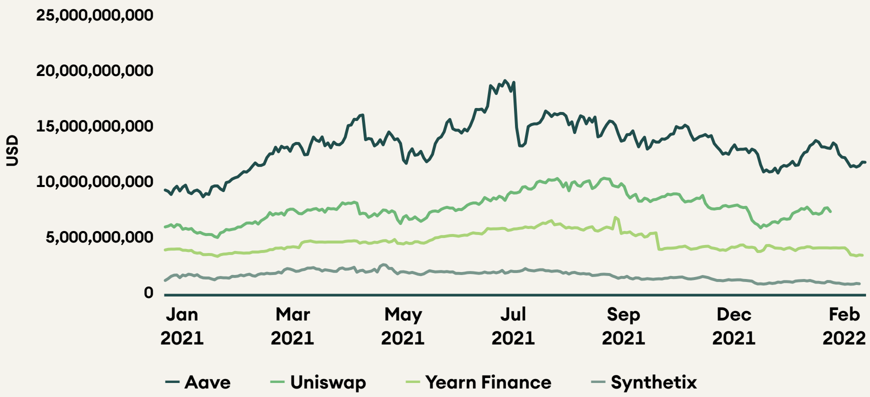


Source: SEBA Bank, Messari

6.
Decentralised Finance (DeFi)

While the entire crypto market has experienced drastic losses following the news of the hawkish Fed, the Total Value Locked (TVL) on the yield generating platforms has also decreased substantially. TVL is a metric used to measure the inventory or assets deposited in a decentralised app, has been falling since November 2021 in correlation with the overall crypto market.

Figure 10: TVL for major DeFi protocols has been dropping over the past few months



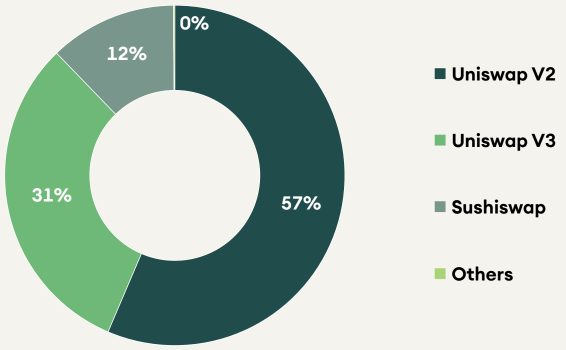
Source: SEBA Bank, Defillama

Crypto loans thrive in exuberant market conditions when users borrow to cash in on the upside. When the market conditions look weak, demand for crypto loans and TVL falls. As a result, overall DeFi activity plunges along with protocol governance tokens.

DeFi tokens, in general, did not perform well last year. DeFi trend of summer 2020 died in 2021 to be replaced by NFTs and Metaverse.

Uniswap continues to have the lion's share of decentralised exchange activity on Ethereum. Uniswap is the second most used application on Ethereum with 300K monthly users, USD 4.5 billion as TVL, and USD 2 billion in daily trading volume.

Figure 11: 30 Day Ethereum DEX Activity



Source: SEBA Bank, Etherscan

Yearn Finance has now been deployed on Arbitrum, an Ethereum scaling solution with the 'Curve tricrypto' vault on the network. Although the TVL on Yearn has dropped by 15% in the last 30 days, Arbitrum development will bring more users onboard looking for low fee borrowing.

Aave, a decentralised lending protocol, has added multiple coins like stETH, DPI, and UMA, on the platform. These tokens can now be deposited and used as collateral. Aave will be integrated with Starkware to facilitate cross-chain liquidity mining, according to a recent proposal. This integration will attract more users to newer blockchains with Aave deployed on them, like Cronos and BitTorrent chains.

Synthetix has also added five new synths, AVAX, AAVE, UNI, MATIC, and EUR, to optimise trading and shorting. The transaction fees on Optimism have also been lowered down to 25bp. It is safe to say that all lending protocols are chain agnostic and provide seamless user interaction across multiple chains.

Chainlink VRF v2 is now live on the Ethereum mainnet. Chainlink VRF v2 offers smart contract developers an improved solution that provides an easier way to configure and scale requests, while reducing transaction costs.

7.
Conclusion

Given the constant geopolitical uncertainties, the crypto market has been very volatile in the last month. The overall market had lost almost 50% of the market cap since its all-time high in November 2021, but we also saw a strong correction towards the end of February and early March 2022. Bitcoin price increased significantly recently while traditional financial asset remained under pressure. For the first time in troubled time, Bitcoin decorrelates from other assets.

Crypto assets play both positive and negative roles in the current Russia-Ukraine conflict. On one side, the generous crypto community is donating to Ukraine and helping them source essential supplies. In Russia, they can be used to avoid financial sanction. The demand for cryptocurrencies has increased in Russia as the volume of cryptos traded in Russia suggest. While information is limited, volumes do not support the idea that the government uses this alternative payment system. In our opinion, Russian citizens try to avoid the capital controls and are saving in hard currencies (stablecoins) and bitcoins.

Bitcoin maintains its market dominance at more than 40% and bitcoin adoption through the key use case as a store of value is picking up across individuals, corporate treasuries, institutional investors, and even nation-state treasuries. After El Salvador made it legal tender, several other countries may also follow suit and thus create immense demand for Bitcoin. The lightning network growth has been exponential over the years, enabling Bitcoin to be more scalable.

The NVT and MVRV ratios for all payment coins have depressed with prices, and thus valuations look attractive for investors. Ethereum dominates the NFT ecosystem and is followed by Solana with relatively small numbers. Alternate platform chains are struggling to gain traction and new users. As a result, they have performed the worst in this market correction, and Bitcoin has fallen the least.

The decentralised finance ecosystem continues to struggle with losing TVL and NFTs driving the volumes. Most DeFi projects are taking the route of being multi-chain to retain users and sustain their growth.

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