2022 DeFi Year In Review

1. Introduction

Decentralised Finance (DeFi) allows any consumer with an internet connection to access financial services, such as lending, borrowing, and trading, without needing to trust a traditional intermediary like a bank.

When Satoshi Nakomoto introduced the world to blockchains in 2009, cryptocurrency was the first application. Bitcoin demonstrated that blockchains could be used to prove true ownership of digital currency. Over a decade after the launch of Bitcoin, DeFi is proving that blockchains have many other use cases.

DeFi has taken a hit this year as the global economy has declined, but the sector has come a long way from its simple beginnings. What started as one innovative product on Ethereum (MakerDAO building the first stablecoin) has grown into a multi-billion dollar global industry that has impacted hundreds of thousands of consumers.

In this report, I aim to present a comprehensive data-driven view of DeFi for those who want to understand what's happening beneath the surface.

Kofi
DefiLlama Contributor

2. Overview

2.1 What?

DeFi is an emergent category of blockchain-based products and services that provide financial services in an automated manner.

DeFi has sparked the interest of consumers because anyone in the world can participate without permission and without needing to trust third-party intermediaries like banks.

2.2 Why?

There are many reasons why DeFi is important.

The purist view: Traditional financial services lack transparency, are inaccessible to a large portion of humanity, and centralize control in the hands of a few privileged parties who abuse that power to enrich themselves.

The only way to escape this broken system is to build a new one that is open to everybody. A system that runs on tamper-proof code and is thereby immune to corruption.

The tourist view: We can build better fintech businesses on-chain. DeFi services can run more efficiently than traditional finance services because all the core functionality is automated. There is no need for constant human intervention.

Additional factors: DeFi products are reliable. Once a protocol is launched, nobody can change its rules. And as long as the blockchain a protocol sits on is operational, it will never stop running.

DeFi products are global first because anyone with an internet connection and cryptocurrency can connect to a service and use it regardless of their background.

2.3 How?

Every DeFi protocol has a set of smart contracts that define the rules of the service. A smart contract is a program stored and executed on a blockchain. Smart contracts can receive, store and send crypto assets based on predefined conditions.

When combined with open source, this creates an environment where nobody has to trust an intermediary. All parties know the rules of the game, and anyone can read the contracts to verify these rules.

2.4 When?

Here is a timeline of the history of DeFi

2009: Bitcoin
Bitcoin proved that it was possible to have true ownership of digital financial assets and make instant international payments without using a trusted third party.

2015: Ethereum
In July 2015, the Ethereum blockchain launched and introduced smart contracts to crypto. This allowed developers to begin building applications that would enable blockchain use cases outside of currencies and payments.

2016: EtherDelta
EtherDelta was the first decentralized exchange launched on Ethereum. This protocol allowed users to permissionlessly trade tokens on-chain. It used an order book model to connect sellers with buyers.

EtherDelta users lost $1.4M to a phishing attack in 2017, and its founder was charged by the SEC for running an unregulated securities exchange. Combined with other factors, this killed the protocol.

2017: Maker
Three years after the project's inception, Maker was deployed on Ethereum as the first DeFi stablecoin protocol. Maker allows users to provide collateral and mint a stablecoin.

A stablecoin is a token that has its value pegged to another asset. The Maker stablecoin, DAI, tracks the US dollar price.

2018: Uniswap
Uniswap launched in 2018 and was one of the first decentralized exchanges to use automated market makers instead of an order book.

2019: Synthetix Liquidity Incentives
In July 2019, Synthetix, a derivatives trading protocol, launched a program where users who provided collateral to the protocol could earn both trading fees and the protocol's native token, SNX.

This technique, incentivising users to add liquidity to a protocol with a token, would become a key driver of the DeFi boom in 2020.

2020: Black Thursday
On 12th March 2020, the price of ETH fell by more than 30% in one day. This sudden drop had a huge impact on the DeFi ecosystem.

Maker protocol failed to liquidate underwater positions fast enough and lost millions of dollars. The protocol had to create and auction off large sums of its native token MKR to cover the shortfall.

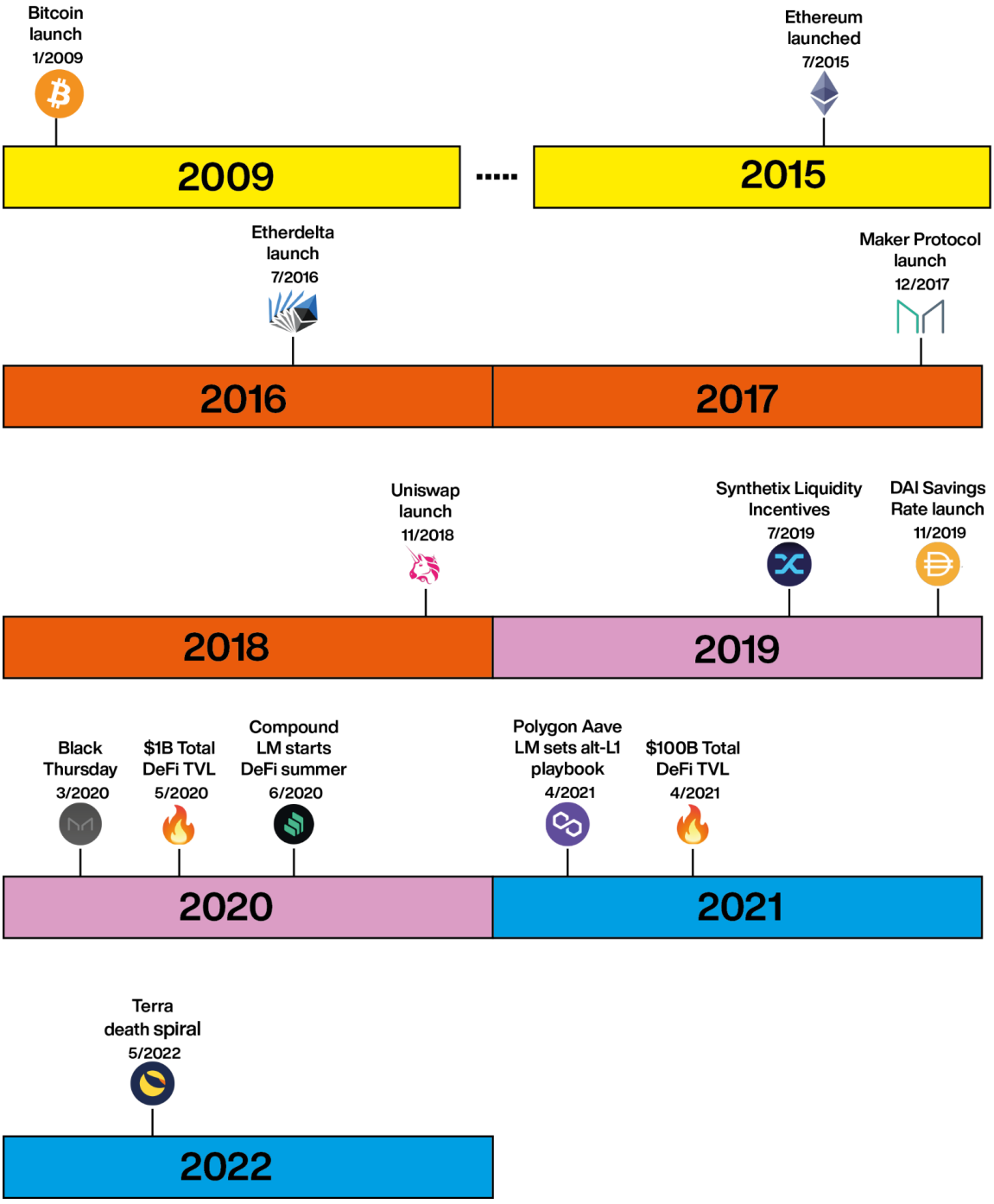
2020: DeFi Summer
In June 2020, Compound protocol launched a liquidity mining program which gave COMP token rewards to users who lent money and took out loans on the protocol. This led to a massive increase in activity on Compound.

Other protocols quickly adopted liquidity mining, and the flood of incentives resulted in exponential growth of DeFi activity.

Of course, this state was not sustainable. The value of DeFi tokens plummeted at the end of the year, and as a result, so did the value of the incentive program yields.

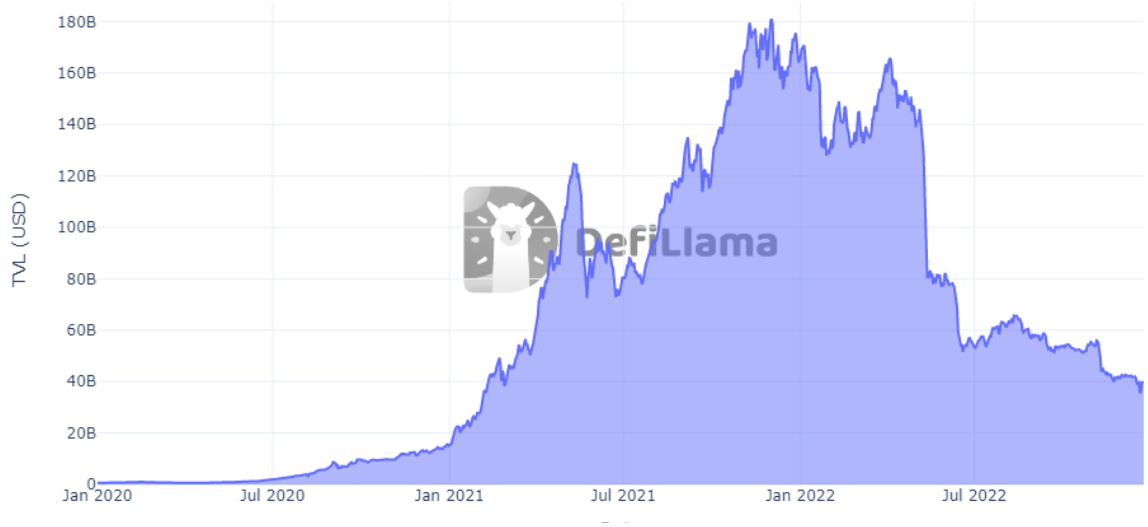
2021-Now: The Odyssey
Since DeFi summer, the industry has faced an explosion of new innovations and challenges. We're still in the early innings of this movement. It only gets crazier from here.

A Brief History of DeFi



3. The State of the Market in 2022

Total Value Locked (TVL) is the sum of the value of all assets deposited in a DeFi product. Total DeFi TVL has trended down this year, but the new floor sits far above the level seen prior to the most recent bull market.

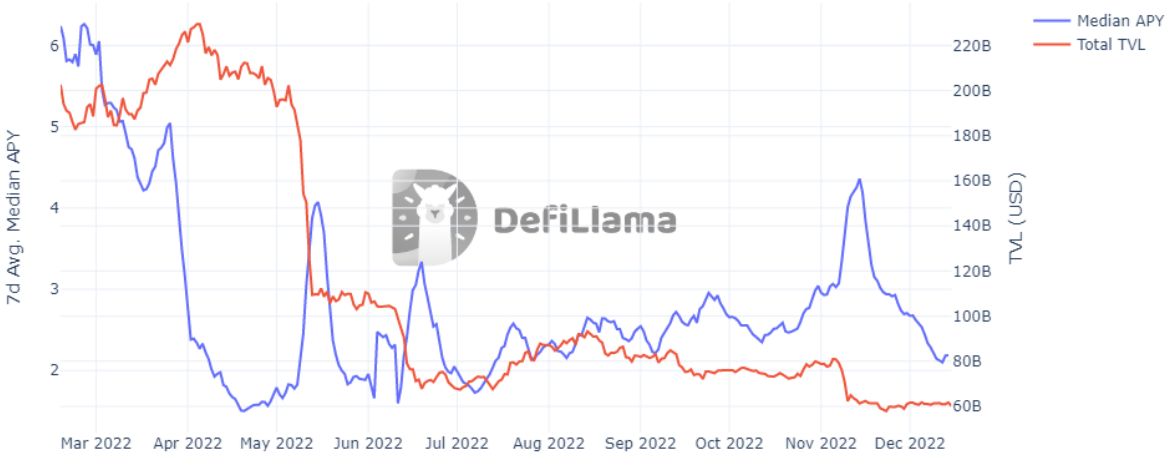


Total Value Locked

How DeFi yield drives DeFi TVL

DeFi TVL is correlated DeFi yield rates. Investors can provide capital to DeFi protocols and earn yield for doing so. There are many sources of DeFi yield. For example, some protocols lend money to borrowers, charge interest, and give those interest payments to liquidity providers.

When yields are high, investors clamor to deposit capital in DeFi protocols to earn juicy returns. When yields are low, investors move their money to other opportunities where they can get better returns. As we can see in the chart below, the crash in median DeFi yield at the start of 2022 was closely followed by a steep drop in DeFi TVL.



Median DeFi Yield and Total Value Locked

How US monetary expansion drove this cycle

The rise and fall in DeFi yield and the resulting boom and crash in TVL that we saw during the 2020-2022 crypto market cycle was caused by several interrelated factors. One of the biggest drivers of the cycle was the rise in US inflation caused by the US government's aggressive monetary expansion policy.

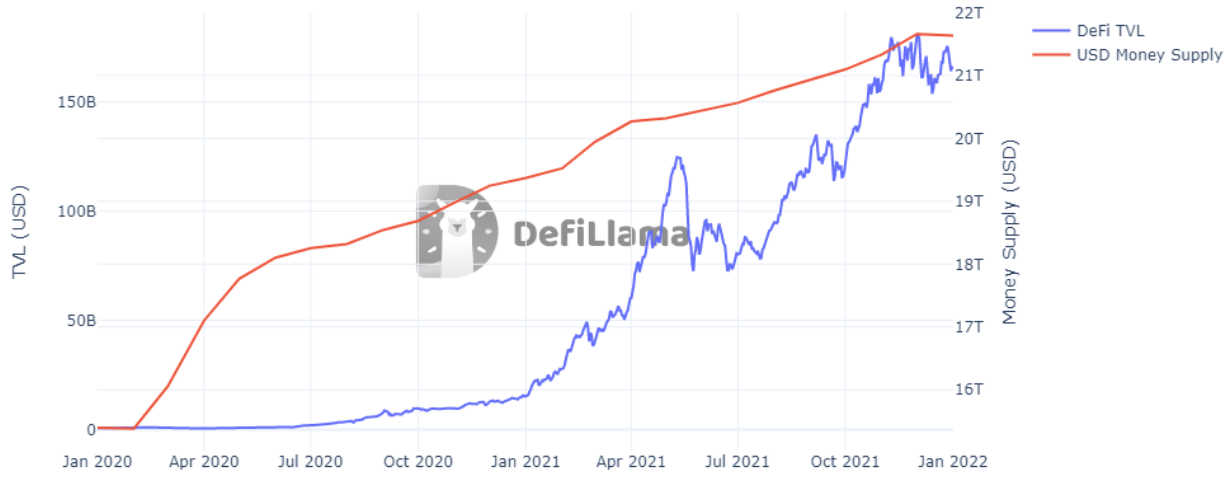
Americans are one of the world's largest demographics of crypto holders, and they have relatively high purchasing power. As a result, Americans have an outsized influence on the crypto markets.

In 2020, the US government printed money with stimulus packages to combat the economic downturn caused by the Covid 19 pandemic. The supply of US dollars grew 26% that year. Consumers had more money to spend, and their demand drove up the price of goods and services. This led to a steep rise in inflation in 2021.

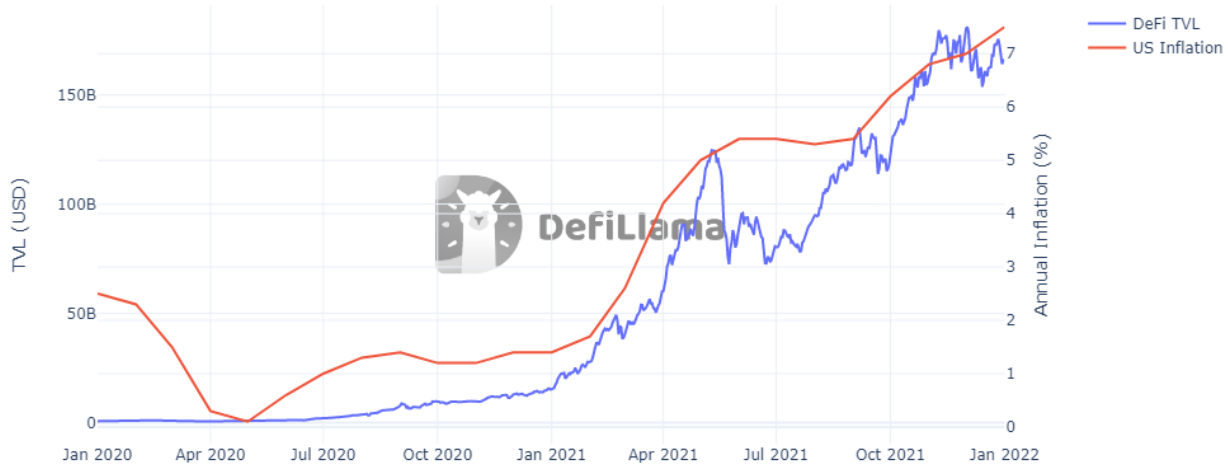
As inflation rose, sophisticated investors bought into risk-on assets, such as growth stocks and cryptocurrencies, to escape inflation. The narrative was, “My cash is losing value because of inflation. I need to buy assets that are appreciating faster than inflation is rising”. Retail investors had increased disposable income thanks to the stimulus, so they also spent more on risk-on assets.

As a result, there was a surge in demand for cryptocurrencies. The prices of crypto tokens boomed. Increasing crypto asset prices meant that the tokens investors were earning as yield in DeFi protocols were worth more. Thus, the yield was worth more. Monetary expansion drove inflation which drove up crypto token prices and yield value.

Capital flowed into DeFi protocols to capitalize on that yield. Through this process, the bull market entered full swing. As we can see on the chart below, the boom in DeFi TVL closely followed the boom in the supply of the US dollar and US inflation.



DeFi TVL and US Money Supply



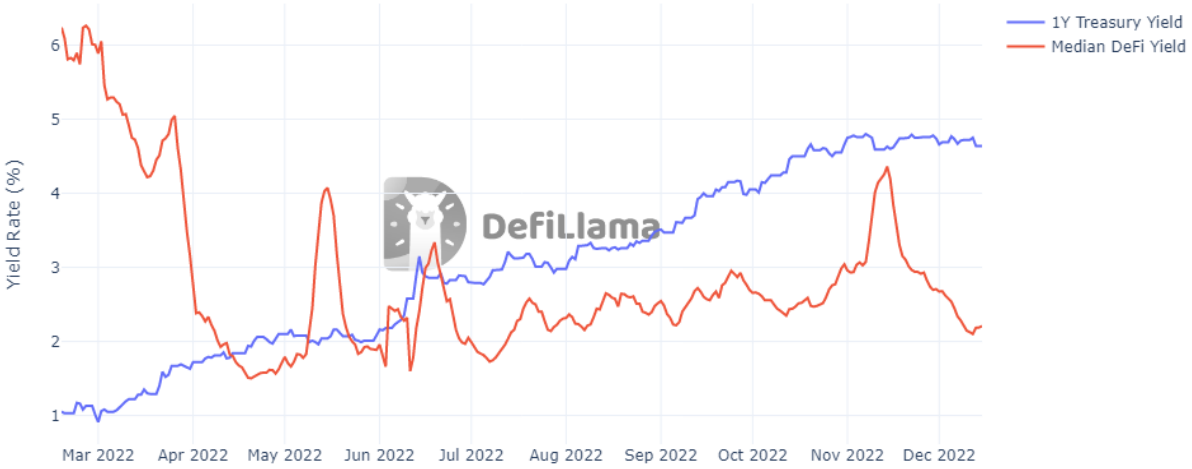
DeFi TVL and US Inflation

Sadly, the fun times couldn't last forever. Inflation rose too high, and in 2022 the US Federal Reserve raised interest rates. When interest rates are high, borrowing money is more expensive, so investors and consumers are pushed to reduce spending. High interest rates also lead to higher treasury yields, so investors move money from other assets into treasuries.

The Fed achieved its goal of lowering spending and fighting inflation. But this drove down token prices, which drove down DeFi yield and TVL.

We can analyze historical data to find the exact point when the opportunity for yield in legacy markets flipped DeFi yield. Let's look at the tradeoff between investing in DeFi yields and US treasury bills. The chart below shows that in April 2022 median DeFi yield fell below the yield of 1Y US treasury bills.

At this point, sophisticated investors who (1) were farming DeFi yield and (2) had access to US treasuries would be faced with the decision to either reallocate their capital or miss out on potential gains. Why take on risk in DeFi if you can earn more money in relatively risk-free treasuries?



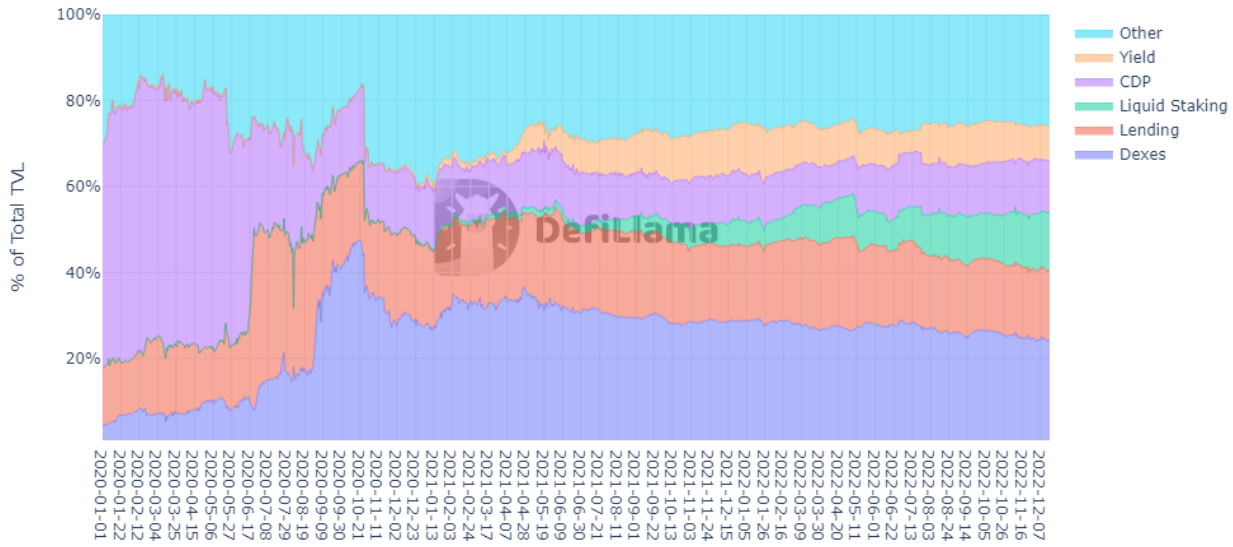
DeFi Yield and 1Y US Treasury Yield

What comes next

The story won’t end here. Crypto naturally lends itself to intense bull and bear cycles. During a speculative bubble, greedy capital flows into cryptocurrencies and DeFi products, seeking to take advantage of the rising asset prices and yield. During a bear market, economic activity falls and unsustainable systems collapse, but some of the new capital, talent and user base that came in during the bull is retained. The result is an industry that's more resilient and well-equipped than it was before the boom.

4. Top DeFi Categories

When we look at a breakdown of DeFi TVL by category, we see that in early 2020, before the latest bull run, most of the TVL was in Collateralized Debt Position (CDP) protocols. Using collateralised lending, these CDP protocols mint stablecoins (tokens with value pegged to an external asset).

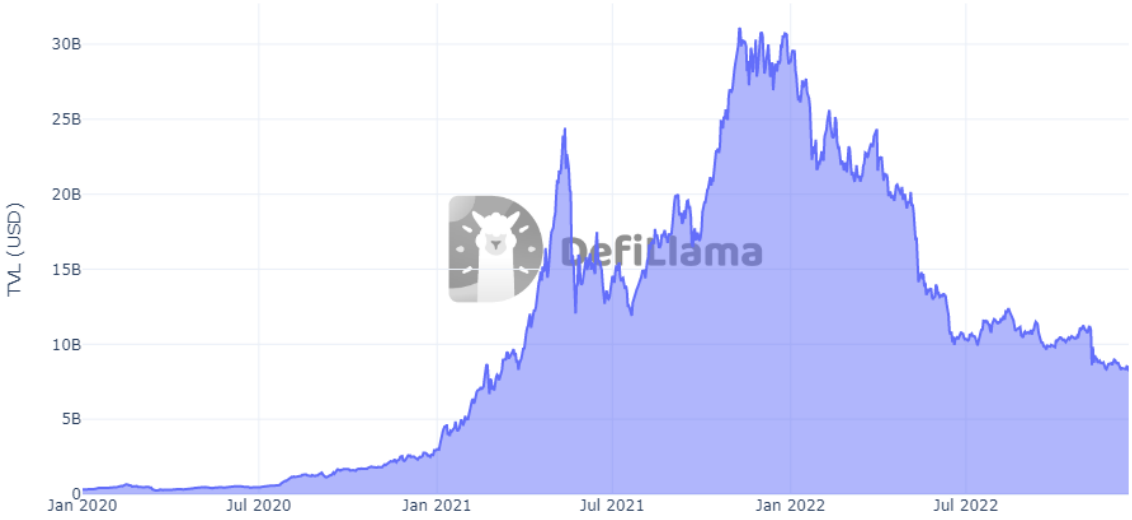


TVL Market Share by Category

4.1 CDP

Maker accounted for most of the CDP TVL in early 2020 because, at that time, getting DAI as a loan against crypto collateral was the best DeFi option for borrowing against cryptocurrencies. Another contributor to Maker's dominance was the Dai Savings Rate that Maker introduced in November 2019. This product allowed users to deposit DAI and earn some of the interest from Maker loans. It became the most popular option for interest-bearing accounts in DeFi.

When DeFi summer started in mid-2020, other categories started eating into CDP's TVL market share as many different protocols launched liquidity mining programs. They used token incentives to encourage users to deposit funds. But Maker is still the biggest DeFi protocol by TVL. In December 2022, Maker held 15% of all the TVL in DeFi.



CDP TVL (USD denominated)

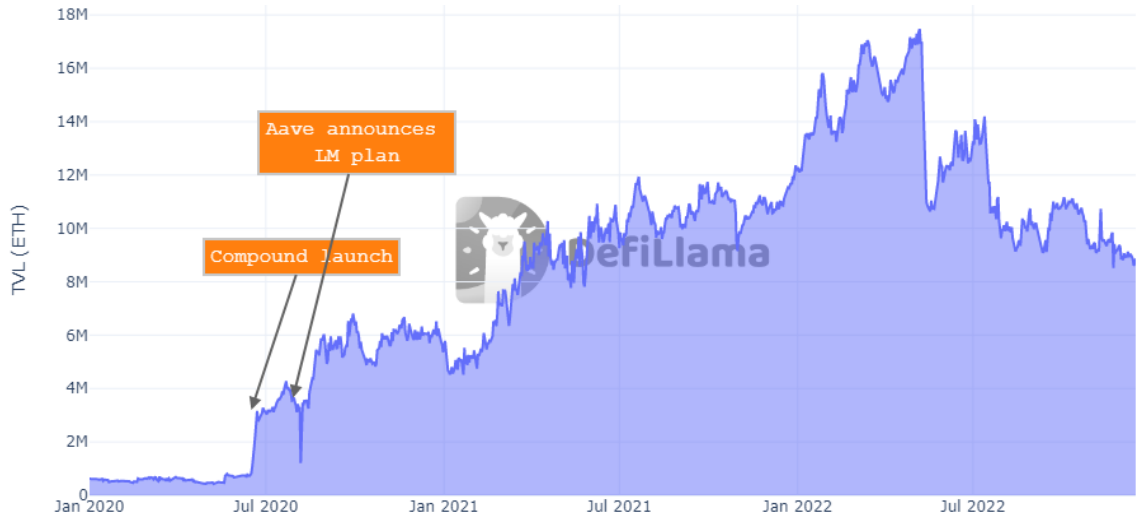
4.2 Lending

Compound, a popular lending protocol, kicked off the liquidity mining trend in June 2020 with a wildly successful token incentive program. As a result of Compound's success, Lending TVL market share spiked from 16% to 43% in one week.

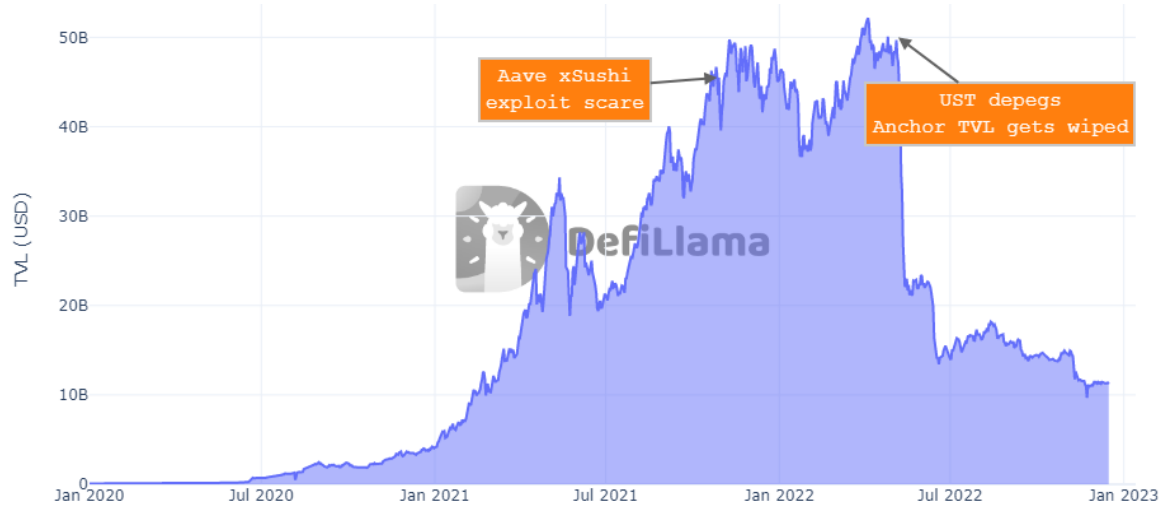
Aave, the most popular lending protocol, followed up with its own liquidity mining program that helped launch it into its position as the market leader.

The charts below show that these events caused a step change in Lending TVL in 2020. Then in 2021, the category saw rapid growth as token prices, and lending yield exploded.

I've presented Lending TVL in both ETH and dollar terms. I decided to share both versions because token prices rose so fast in 2021 that it's hard to see the critical spikes of 2020 on a dollar-denominated chart.



Lending TVL (ETH denominated)



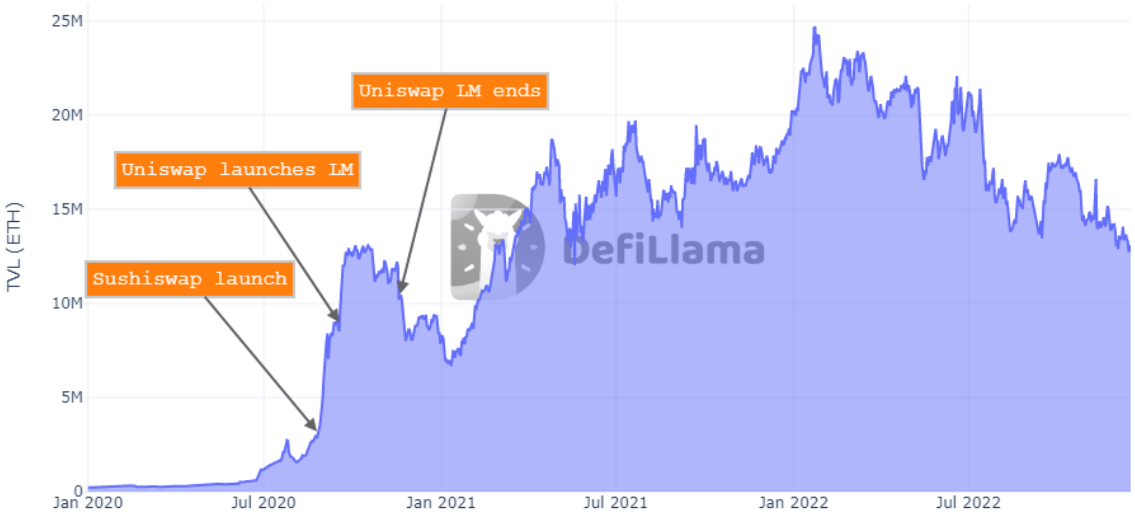
Lending TVL (USD denominated)

4.3 Decentralized Exchanges

Decentralized exchanges (DEXs) was the next category to see TVL skyrocket in 2020. In September 2020, SushiSwap launched with a big token incentive program and attracted a lot of liquidity providers (LPs).

LPs deposit funds in DEX liquidity pools, and that money helps facilitate trades. In exchange, LPs earn trading fees.

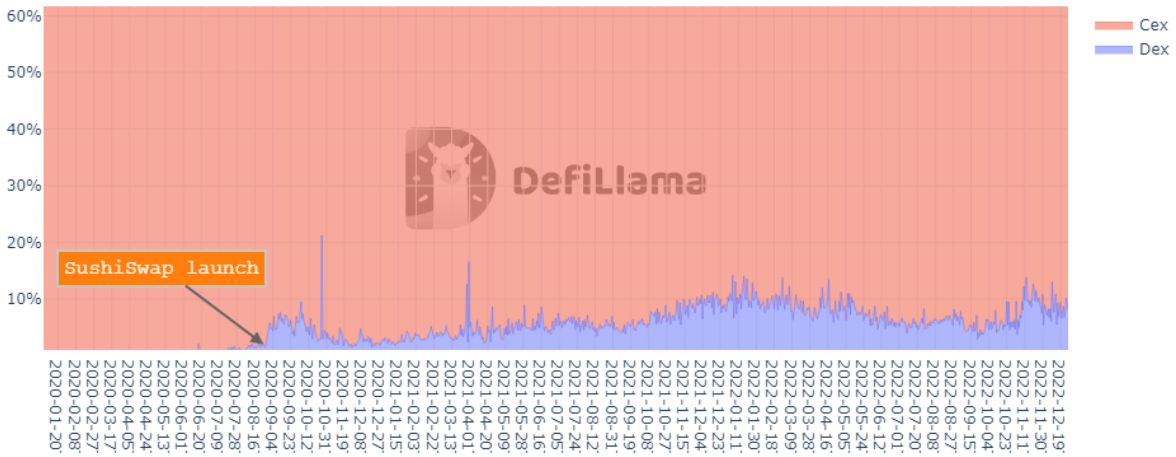
Sushiswap's program pulled a lot of LPs away from Uniswap, the most popular DEX. To combat this "vampire attack" Uniswap launched their own incentives. The result of these programs was that DEX TVL market share rose from 18% to a peak of 47% within two months.



DEX TVL (ETH denominated)

DEX TVL (USD denominated)

The chart below shows that in September 2020, at the same time that DEX TVL was skyrocketing, DEXs stole significant trading volume market share from centralized exchanges.



DEX V CEX Trading Volume Market Share

4.4 Liquid Staking

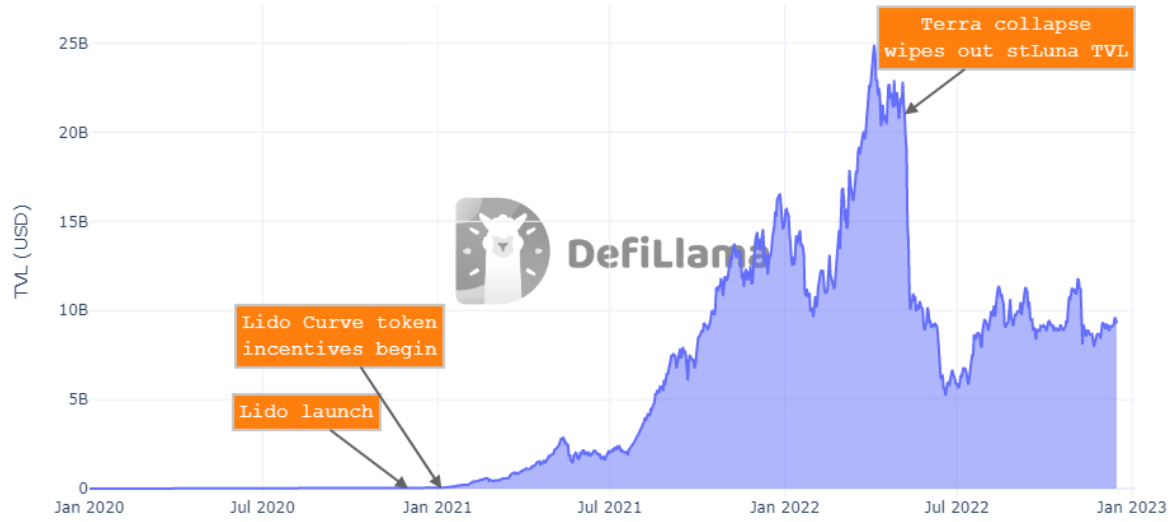
In 2021 and 2022, the Liquid Staking category attracted considerable market share, primarily driven by the success of Lido Protocol.

On blockchains that use Proof of Stake (PoS) consensus, validating nodes stake the blockchain's native token to earn the right to process blocks of transactions and win block rewards.

Liquid Staking protocols allow users to stake the native assets of a blockchain in exchange for both staking rewards and a tradeable tokenized representation of the staked position.

In December 2020, Ethereum's beacon chain launched. The beacon chain was where Ethereum's new PoS consensus logic was battle-tested before the main chain's planned translation to PoS. The beacon chain merged with the original Ethereum proof-of-work (PoW) chain in September 2022, making Ethereum mainnet a PoS chain.

Lido also launched in December 2020, making it easy for anyone to get Ethereum staking yield without running a validator node. Using Lido, Ethereum users didn't have to choose between DeFi yield and staking yield. They could have both sources of yield by staking on Lido and then using the stETH they received in DeFi.



Liquid Staking TVL (USD denominated)

4.5 Yield

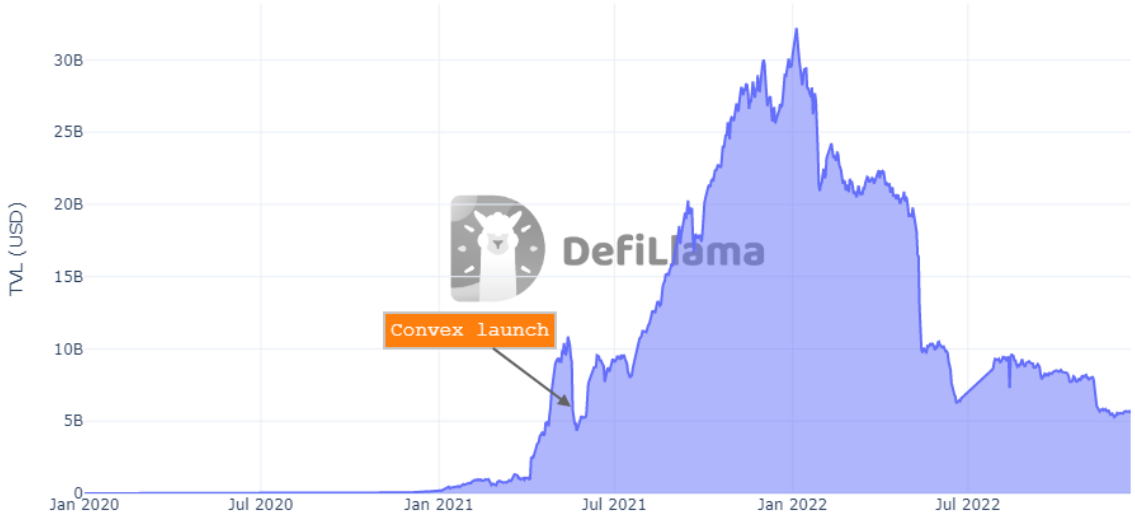
Yield protocols have also seen tremendous growth in TVL over the past two years. These protocols reward users for staking or LPing tokens on their platform instead of doing it directly on the target protocol. The growth in TVL of this category was largely driven by a series of events known as the Curve wars.

Curve is a very popular DEX specially designed for trading between stablecoins and trading between pegged assets such as ETH <> stETH. Curve implemented a “vote escrow” token system in August 2020. This system allowed users to lock their Curve tokens (CRV) in a smart contract to earn veCRV. veCRV grants holders the ability to vote on the parameters for Curve liquidity pool, most importantly, which pools received the most CRV incentive rewards for LPs.

Different protocols and groups began competing to accumulate the most veCRV tokens and voting power. Convex, the biggest Yield protocol, won that struggle and became the largest holder of veCRV. Convex users who deposited CRV were rewarded with crvCVX tokens (these have the same voting power as veCRV, but unlike veCRV are tradeable), more CRV tokens, and Curve trading fees.

One significant driver of Convex’s success was their bribe system. Holders of the Convex token (CVX) could vote on Curve token incentives for every veCRV locked in the protocol. So projects bribed CVX holders to drive incentives to their desired trading pools. Convex TVL grew fast because of people’s desire to get in on the cash flow from bribes. The total TVL of the Yield category was pumped as a result.

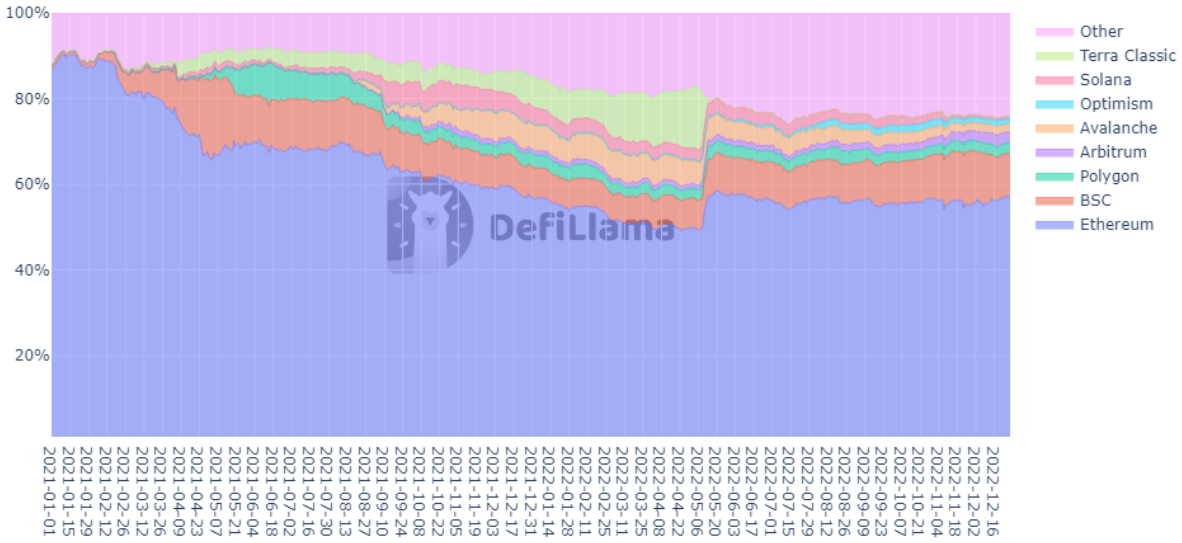
At the peak in January 2022, Convex was responsible for $20B of the $32B held in Yield protocols.



Yield TVL (USD denominated)

5. Chains and L2s

One of the biggest trends of the recent crypto market cycle was the adoption of new smart contract chains that offered faster and cheaper alternatives to Ethereum (alt-L1s). When we look at historical TVL data segmented by chain, we see that at the start of 2021, the majority of DeFi TVL was concentrated on Ethereum. Then Ethereum's dominance started to waver.

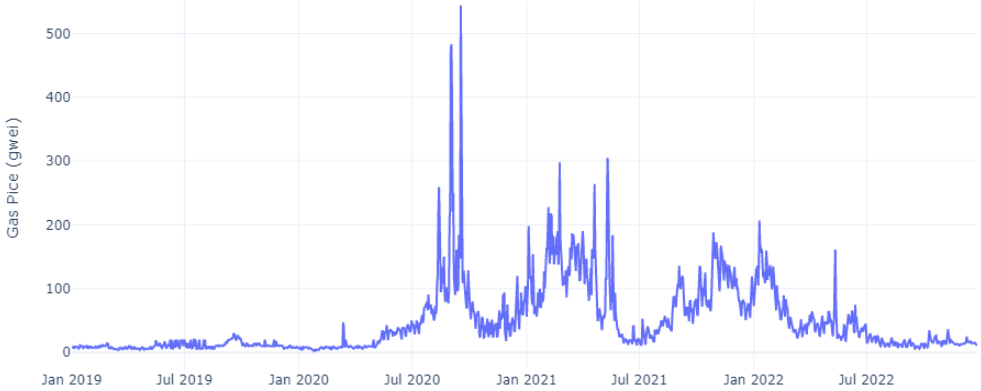


TVL Market Share by Chain/L2

5.1 Ethereum

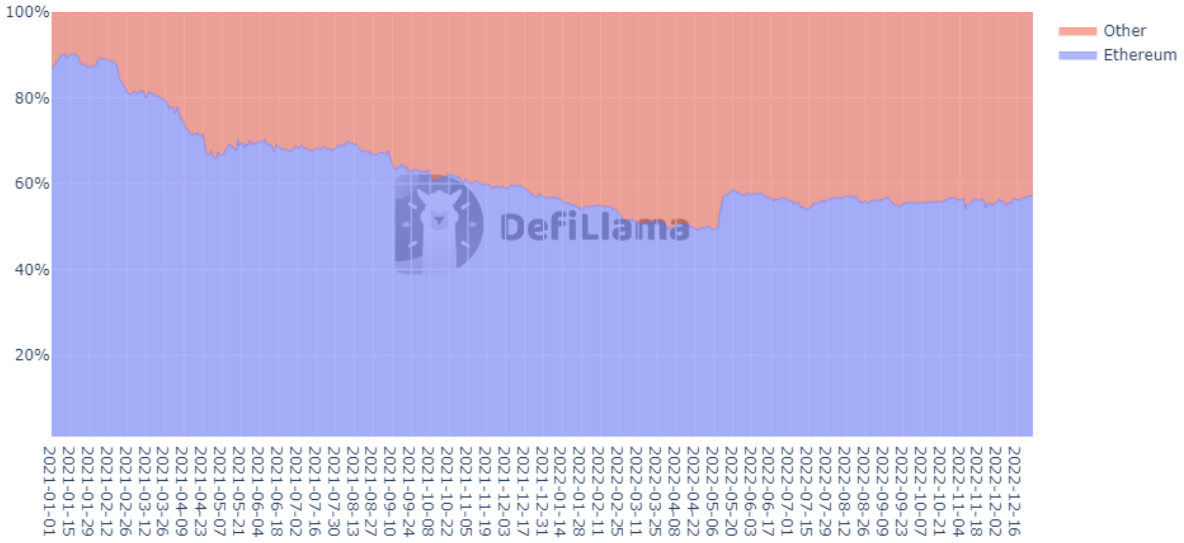
A key driver of the shift in market share we see in the chart above is that during the bull market, the gas prices on Ethereum got so high that the chain was inaccessible to most users. Gas is the fee a user pays to transact on a blockchain.

At the peak of Ethereum gas mania, it could cost as much as $20 to perform an ETH transfer. As shown below, starting in the 2020 DeFi summer, there were multiple spikes in gas prices.

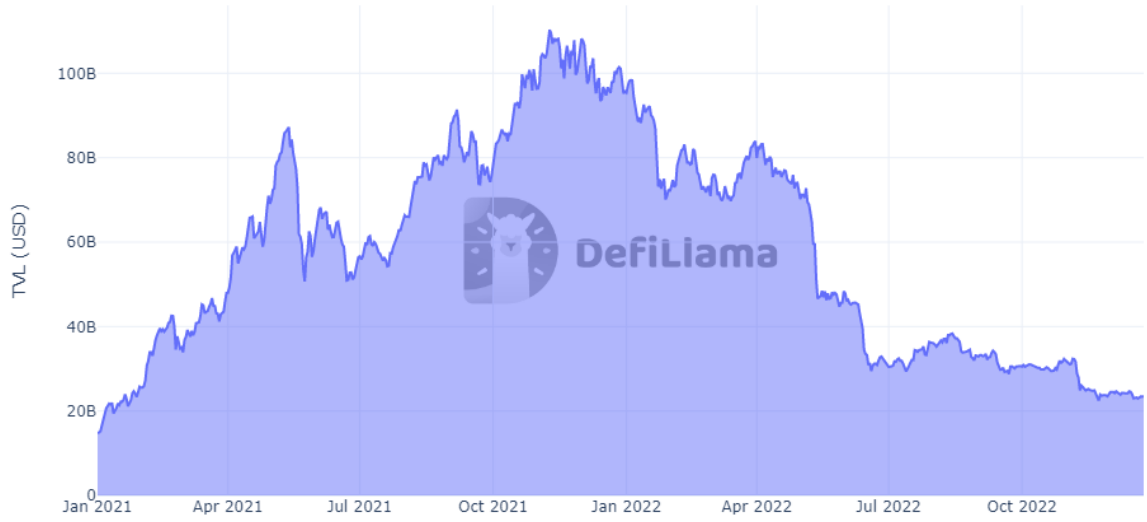


Ethereum Gas Price

Alt-L1s were orders of magnitude cheaper to use and faster than Ethereum because they innovated on their design or traded decentralization for performance. These Alt-L1s successfully ate into Ethereum's TVL market share, which fell from 87% at the start of 2021 to 57% in December 2022.



Ethereum TVL Market Share



Ethereum TVL

Of course, there were many factors outside of gas prices that influenced why specific alt-L1s gained traction at different times. We will explore these catalysts in the following sections.

5.2 Binance Smart Chain

In 2021, Binance Smart Chain saw a surge of adoption from retail users who wanted to trade shitcoins (tokens with no value outside of speculation) on a cheaper, faster chain.

There was profit to be made in getting in early on token launches and flipping fast. Some people were attracted by the massive yield rates projects offered to those who provided liquidity for their tokens on DEXs, but impermanent loss meant this usually wasn't a good strategy.

These drivers led to a massive jump in the TVL of PancakeSwap, BSC's most popular exchange, and Venus, BSC's most popular lending platform. In May 2021, BSC TVL market share hit an all-time high of 18.6%.

BSC TVL

BNB is the native token of BSC; it is used to pay transaction fees when using the chain. BNB exploded in price as users rushed in to use the network and trade shitcoins. This pump played a significant role in building the narrative that "Investing in hot alt-L1s is a good way to make money" and thus contributed to future alt-L1 pumps.

BNB Price and BSC TVL

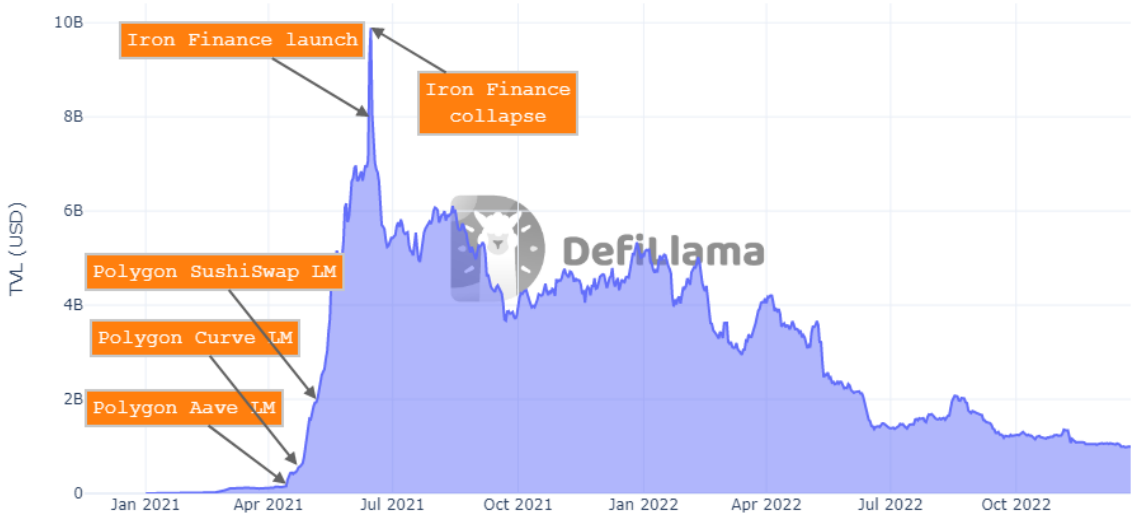
In 2022, as token prices crashed and yields compressed, the TVL of BSC took a hit. At the end of 2022, its TVL market share sat at 10%, down 46% from the all-time high. Despite the drop, BSC is still the second-largest chain by TVL.

5.3 Polygon

Polygon, an Ethereum sidechain, was the next platform to take off. The catalyst was that the Polygon Foundation started working with popular DeFi protocols to have them deploy their products on Polygon and launched joint liquidity mining programs with these protocols.

The first of these joint liquidity mining programs was with the Polygon deployment of Aave. In April 2021, Polygon offered $40M worth of its native token, MATIC, to lenders and borrowers on Polygon Aave. Users rushed to bridge funds over to Polygon and use Aave to earn these incentives. As a result, the TVL of Polygon Aave grew rapidly.

The Polygon Foundation repeated this playbook with many popular protocols, such as Curve and Sushiswap. The price of the MATIC token surged as the chain gained adoption. Polygon's TVL market share hit an all-time high of 10.3% in June 2021.



Polygon TVL

As we entered the bear market, the TVL of Polygon fell. At the end of 2022, Polygon's market share sat at 2.4% (down 77% from the all-time high) and it was the 5th largest chain by TVL.

5.4 Solana

The alt-L1 rotation continued on Solana; the chain saw a massive increase in TVL in August 2021. Liquidity mining programs, high Ethereum gas prices and slow Ethereum transaction speeds contributed to Solana's rise to power. The chain's TVL market share hit an all-time high of 6% in September 2021.

Solana TVL

One growth catalyst unique to Solana's early success was the support of FTX and Alameda. Before their bankruptcy in November 2022, FTX was the 2nd largest crypto exchange in the world, and Alameda was one of the most prominent crypto hedge funds. FTX and Alameda directly influenced Solana TVL by building, investing, and providing liquidity for applications such as the Serum DEX. Indirectly, their promotion helped to attract capital and talent to Solana.

When Solana started taking off, there was a big double-counting scheme orchestrated by Ian and Dylan Macalinao. They launched 11 protocols under 11 anonymous aliases and incentivised users to deposit collateral from one protocol into another. This meant that the same collateral was double-counted many times, creating the impression that there was more TVL in the Solana ecosystem than there was. They could make $1 look like $6.

In September 2021, Macalinao projects accounted for more than half of Solana TVL. This event pushed the DefiLlama team to filter out double counting when viewing TVL on the website. The chart below shows Solana TVL and the combined TVL of some of the Macalinao controlled protocols (Saber, Sunny, Cashio, Quarry, Arrow, aSol) if you don't filter out double counting.

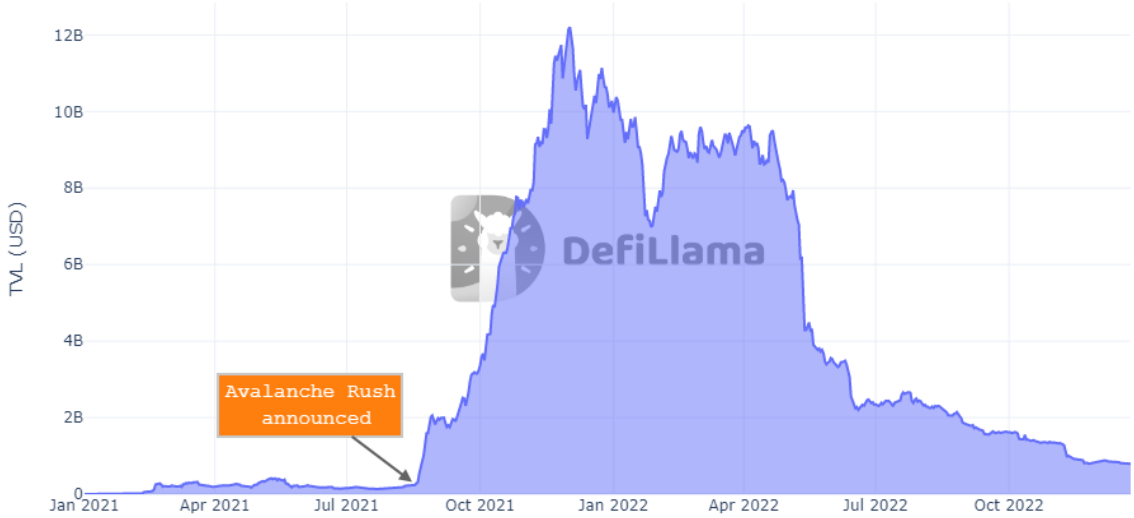
Solana TVL and Macalinao Protocol TVL (No Double Counting Filter)

During the bear market, Solana saw a bigger drop in TVL market share than Polygon and BSC. At the end of 2022, its TVL market share was 0.53%, down 91% from its peak, and it ranked 11th by TVL.

Outside of bad market conditions, Solana was negatively impacted by the FTX-Alameda fallout. In November 2022, it was discovered that $10B of FTX customer funds had been fraudulently siphoned to Alameda and squandered on bad investments. Solana was also hit by a series of three network outages that year, making the chain unusable for days.

5.5 Avalanche

Following the Polygon playbook, Avalanche ran joint liquidity mining programs with popular protocols to encourage users to adopt the chain. The Avalanche Rush program committed $180M of AVAX token to incentives for protocols such as Aave, Curve, Benqi, and Trader Joe. Within four months, Avalanche TVL market share rose to a peak of 6.8%.



Avalanche TVL

By December 2022, Avalanche TVL market had fallen to 1.9%, down 72% from its peak, and the chain was ranked 6th by TVL.

5.6 Terra

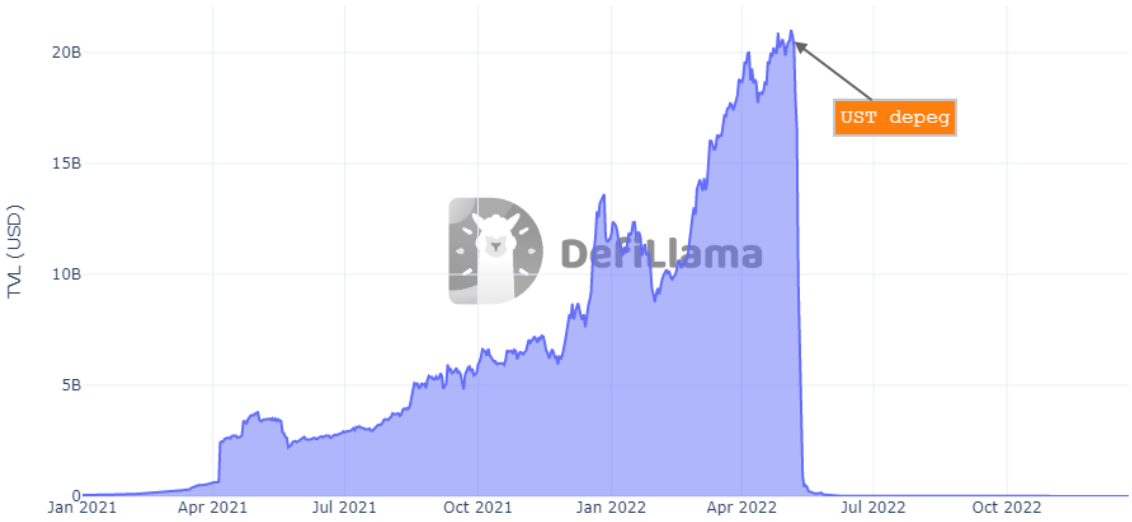
Terra chain gained a lot of traction from late 2021 into early 2022. Terra's most popular product was a stablecoin called UST, which was backed by the chain's native token, LUNA.

The cause of this growth was that Terraform Labs deployed a massive incentive program in the form of Anchor Protocol. Users could deposit their UST in Anchor to earn a fixed 20% savings rate. The Anchor Reserve Fund heavily subsidized the yield. A small portion of the yield came from interest paid by borrowers on the Anchor lending market and the rewards from staking borrower's collateral. This incentive resulted in Terra seeing a huge influx of users and capital who wanted this impossibly good fixed savings rate.

Backing a stable asset with a volatile endogenous asset (one originating from the same system) proved unsustainable. This model had already failed many times before, with Iron Finance, Empty Set Dollar, and Basis Cash (the last of which we later learned was also created by Terra's founder Do Kown). The model was destined to fail again here.

In early May 2022, UST lost its peg and started trading below $1 following a weekend of large UST sales. UST holders could redeem their UST, which was worth less than $1, for $1 worth of LUNA. As more users redeemed and the supply of LUNA rose, its value fell. In the following week, UST and LUNA holders race to exit their positions. As the price of UST fell, more Luna was printed. As the price of Luna fell, confidence in UST was decimated. The resulting death spiral shot the value of both tokens to ~0.

The crash of Terra's ecosystem wiped $20B of TVL out of DeFi. At its peak, right before the crash, Terra had 15% market share.



Terra TVL

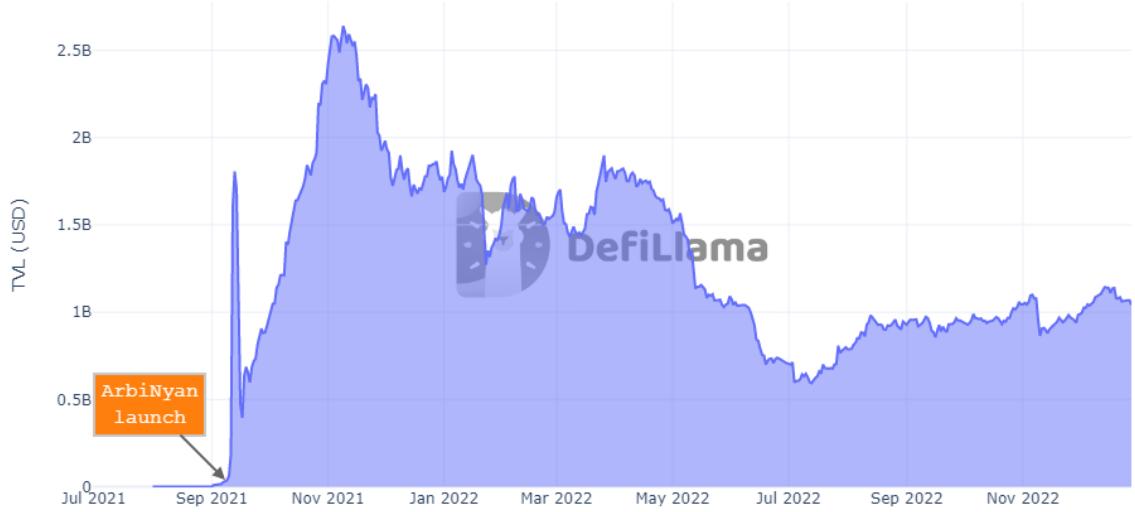
The effects of this collapse echoed throughout the rest of the year. The Terra contagion contributed to the failure of multiple centralized crypto businesses, such as Celcius and Voyager, that mismanaged their risk and were not prepared for a downturn.

5.7 Optimism and Arbitrum

Arbitrum and Optimism are rollups, also known as L2s, that are built on top of Ethereum. Rollups are networks that help a blockchain scale and support faster, cheaper transactions by moving some of the computation off-chain while keeping some data per transaction on-chain. Arbitrum and Optimism rose up the TVL market share ranks in 2022.

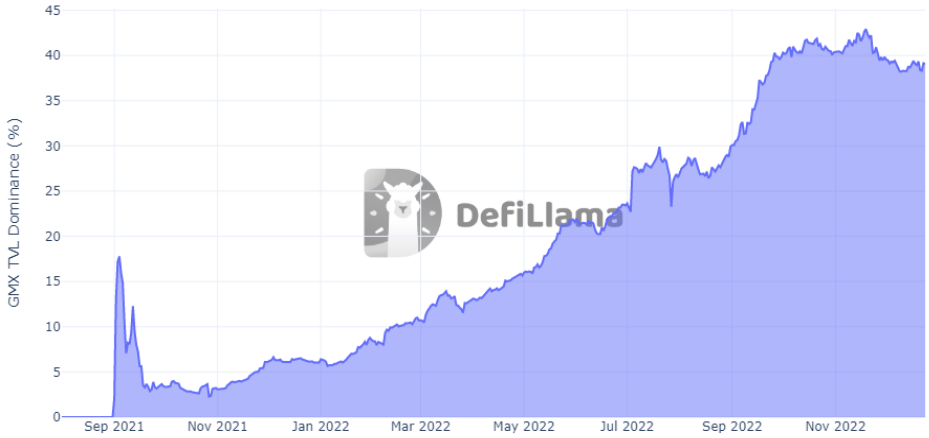
Arbitrum

When Arbitrum launched in September 2021, it immediately saw a massive run-up in TVL and hit a peak of $2.6B within two months. Initially, capital flooded Arbitrum to participate in shitcoin yield farms like ArbiNyan, which shot up to $1.5B TVL for a single day before crashing, and Carbon, an ArbiNyan fork that hit a similarly short-lived peak of $300M. Then that capital migrated to farm rewards on popular protocols like Curve and Abracadabra.



Arbitrum TVL

As time passed, Arbitrum TVL became heavily driven by GMX, a popular spot and perpetual exchange. Arbitrum does not have a token yet, so there has also been significant capital inflow from users who want to earn the future token airdrop by participating in the ecosystem.



% of Arbitrum TVL that is GMX

At the end of 2022, Arbitrum's TVL market share was 2.6%, and it ranked 4th for TVL.

Optimism

Optimism had a much more gradual growth in TVL when it launched in July. The Optimism Foundation intentionally restricted early growth so that they could test the network in a controlled manner. Until December 2021, developers had to be accepted onto an allowlist to deploy apps on Optimism.

Synthetix protocol played a major role in bringing TVL to Optimism early on. Synthetix was the first big protocol to deploy on the L2, and they built a bridge that made it easy for users to migrate their SNX tokens to Optimism.

Similar to Arbitrum, early Optimism TVL was also affected by anticipation for its token. Optimism airdropped its token to users in May 2022. Since then, the Optimism Collective has started running joint liquidity mining programs with different protocols to stimulate growth.
At the end of 2022, Optimism's TVL market share was 1.2%, and it ranked 7th for TVL.

Optimism TVL

5.8 Outlook

It looks like the alt-L1 narrative has cooled off now that we've entered a bear market, and many of the narratives' big winners have seen their metrics crash from all-time highs. New alt-L1s that have attempted to capitalize on the same narrative, such as Aptos, have not experienced the same crazy run-ups that their predecessors saw.

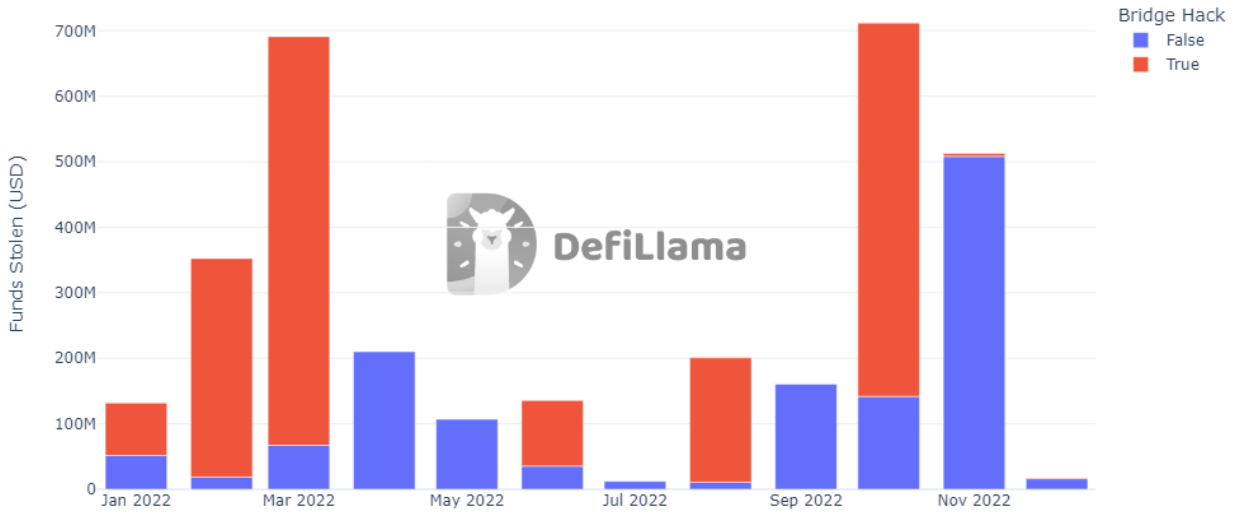
Despite losing significant market share, Ethereum is still the market leader for DeFi by a high margin, and its L2s are rapidly climbing the rankings. It appears that the Ethereum ecosystem will remain the primary home of DeFi for the foreseeable future.

6. Highlights

6.1 Hacks

2022 was the worst year for crypto hacks by a landslide. $3.2B was stolen in hacks and rug pulls. The most significant trend was bridge hacks, which accounted for 59% of the value stolen in 2022.

Security is one of the highest barriers to DeFi's growth and adoption. Consumers can only enjoy the benefits of DeFi if they trust that the smart contracts they are depositing funds into do not have exploitable bugs.



Funds Stolen in Hacks/Rug Pulls over Time

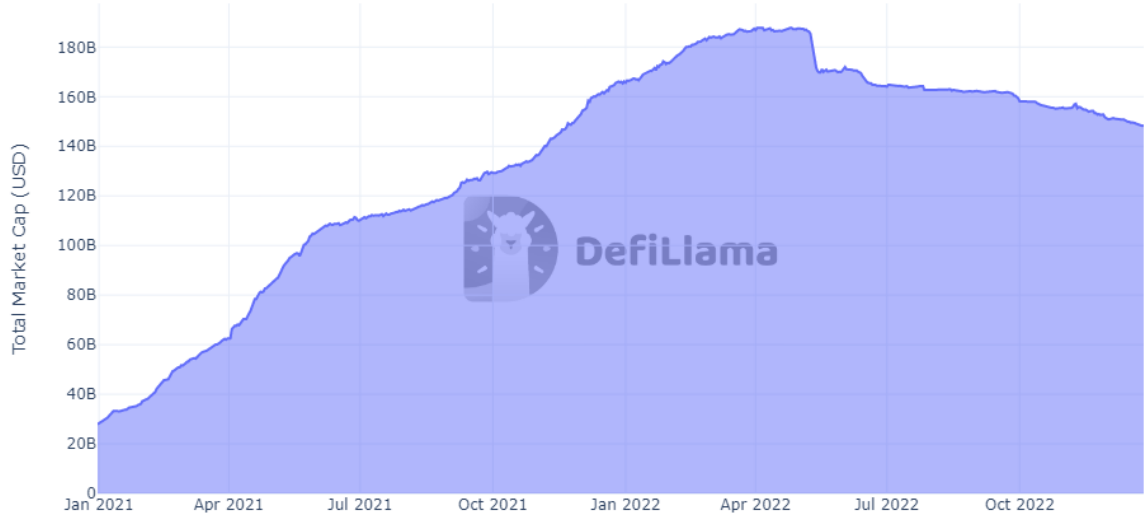
6.2 Stablecoins

In 2022, the total market cap of stablecoins hit a new all-time high of $187.5B.

The drawdown in stablecoin market cap during the bear market has been much softer than other DeFi categories, even when you include the total wipeout of UST. The market cap of stablecoins has fallen to $148B, 21% below the all-time high.

Stablecoins stand tall as the most popular use case for putting real-world assets on the blockchain.

USDT is currently the market leader and accounts for 47% of the stablecoin market cap.



Stablecoin Market Cap

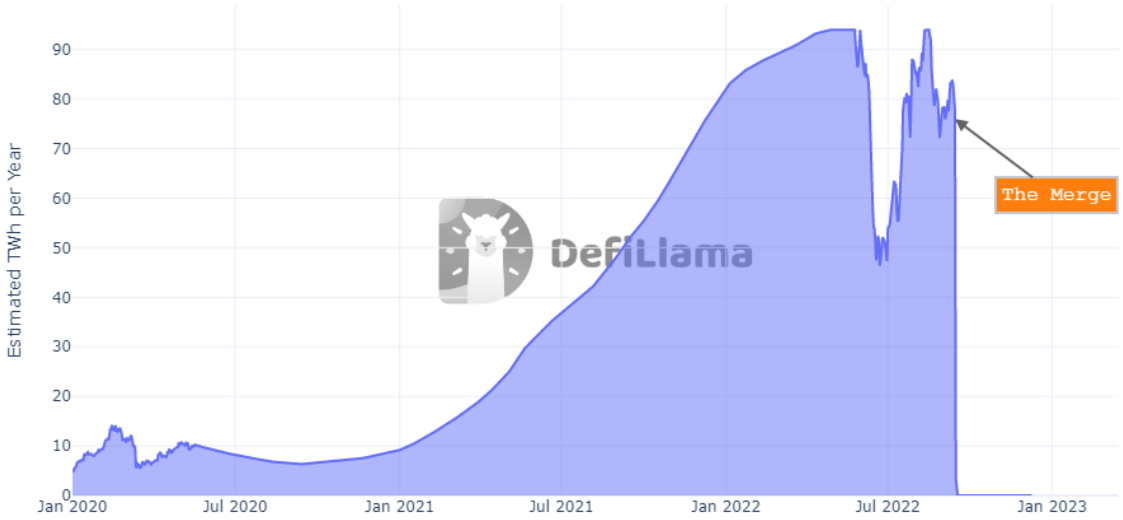
6.3 The Merge

On September 15th, after half a decade of research and development, the Ethereum blockchain transitioned from Proof of Work (PoW) to Proof of Stake (PoS).

In the old consensus system, PoW, Ethereum miners raced to solve a math puzzle. Every cycle, the winning miner earned the right to process a block of Ethereum transactions and earn the ETH reward.

In the new consensus system, PoS, Ethereum validating nodes stake ETH, and one node is randomly selected in every slot to process a new block. The chosen node earns the block reward. If a node behaves maliciously, its stake is slashed. This system is much more energy-efficient, and it enables a host of future innovations that are set out in the Ethereum roadmap. It is estimated that the Merge resulted in a 0.2% reduction in the world's total energy consumption.

The chart below shows that Ethereum's estimated energy consumption fell 99.99% thanks to The Merge.



Estimated Ethereum Energy Consumption [Source: Digiconomist]

The vast majority of DeFi activity is now on chains secured by PoS. This transition has been a massive step forward in improving DeFi's carbon footprint and security.

7. Emerging Trends

Here are some growing trends that the members of the DefiLlama team are looking out for in the new year:

DeFi protocols will move to enable higher leverage on their core functions, enabling more risk to be taken by participants and driving capital efficiency this way. Two examples are Uniswap v3 and Aave v3, with their high LTVs on correlated assets.

- **0xngmi**
  Boss llama

ZK proofs and privacy tech. Killer app will be a smooth on/off ramp app, with smooth DeFi apps integrated, that is mobile first.

- **Strobie**
  Liquidation & extension

The trend I'm keeping an eye on is privacy-oriented DeFi (e.g. Aztec). I also think we will see an expansion of the use of stablecoins because, currently, they are mainly used by residents of Europe and the US. Aggregators are one form of killer app.

- **Vrotend**
  Yield adapters PRs and Meta DEX aggregator

Real yield is needed. It will become easier for people to understand where their yield is coming from. Killer app will be Bloomberg for crypto.

- **Bentura**
  Listings general

I'm watching DEX volumes; they will continue to increase. It will be interesting to see which dApps grow in that category. Having a great DEX is key for any chain looking to grow and compete. Killer app will be a profitable P2E game.

- **realShaman**
  Listings general and Raises

I'm interested in using blockchain for verification. A few years ago, there was interest in supply chain cryptos. It died down, but I think it's an area where blockchains are actually useful. Killer app will be a swish wallet where you can send transactions straight from a dapp UI instead of needing to click in a browser extension like Metamask.

- **waynebruce**
  NFTs and Price API

Protocols offering delta-neutral yield strategies will be a big trend. The killer apps will be privacy-focused wallets, easier on-off ramps, and mobile payments, just to name a few.

- **slasher**
  Yield dashboard

Privacy will be an important trend. I'm excited about Aztec, even if the traction isn't there yet. Maybe Ethereum L2 adoption will grow. I'm still waiting for a good cross-chain dex/aggregator.

- **ulysses**
  TVL adapters

It will be interesting to see what products are developed to meet the demand for "safe" yields in the wake of CeFi lending collapses. Crypto social media has a lot of untapped potential. Someone is going to invent "tiktok to earn" or something and then it's all over.

- **cocoahmology**
  Stablecoins and Bridges

Uncollateralized lending is interesting and I'm keen to see how different projects handle it. Killer app will be taking out loans on your equity.

- **nemusona**
  Llamapay, Llamalend and Waifus

A rising trend will be more governance minimized and immutable protocols that can better withstand a shutdown due to incoming regulatory pressure. The killer app will be a capital-efficient insurance protocol.

- **intern**
  TVL Roundup and Raises

The future trend I'm most interested in is the adoption of prediction markets. Killer app will be a Meta DEX and Bridge Aggregator.

- **mintdart**
  Frontend general

I think there are still a lot of interesting developments to be seen in crypto gaming. The killer app will be an all-in-one multi-chain dapp with access to DEXs, yield, bridges with transaction obfuscation, subscriptions and stream payment integration. I'm tired. I just want to be able to do most stuff from a single place.

- **0xtawa**
  Dex volume, Revenue, Fees

Killer app will be a system that makes it easy for me to get a mortgage without KYC.

- **0xgnek**
  TVL adapters

I'm excited to see improvements in DeFi security. The best teams will shift from treating security like an event-based practice (testing -> peer review -> audit) to treating it like a continuous process: Static analysis and fuzzing for every addition to the codebase. Monitoring systems with automated threat responses. Team members who are solely dedicated to security.

- **Kofi**
  Hacks and Trending Contracts

8. Closing

DeFi has made a lot of progress, but the asset class is still small relative to the traditional financial service industry. The total value locked in DeFi ($54B) is just a tiny fraction of the total assets under management in the banking system.

I believe that DeFi will grow to become an essential sector of the financial world by the end of this decade. In 2023, we will make progress toward that goal:

- More DeFi teams will build products that are accessible to the average user. This will capture greater mainstream attention for the category and further normalize DeFi as a player in global finance.
- The largest centralized cryptocurrency exchanges (Coinbase, Binance, Kraken etc.) will recognize how important it is to prove their reserves on-chain and give users access to DeFi services in a transparent manner. The bridges they build will make it easier for people outside the crypto ecosystem to have their first interaction with DeFi
- DeFi activity will boom on Ethereum L2s in a big way, bringing cheap, fast and secure DeFi experiences to more people.

2022 was packed with new innovations, challenges and breakthroughs for the DeFi industry. 2023 is set to be even more exciting.

Thanks for reading.

Sincerely,
Kofi
DefiLlama Contributor