Q3 2020

DeFi Report

An analysis of Ethereum's decentralized finance ecosystem in Q3 2020.

CONSENSYS Codefi

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With thanks to: Jack Clancy, Thomas Borgers, Nicole Adarme, Lex Sokolin, Mally Anderson.

About ConsenSys Codefi

ConsenSys Codefi is the blockchain application suite powering next-generation commerce and finance. Our vision is to lead the convergence of existing and decentralized financial technologies to create more accessible and equitable financial services for everyone, everywhere.

We work with financial institutions, global enterprises, and Ethereum projects to optimize business processes, digitize financial instruments, activate markets and networks, and deploy production-ready blockchain solutions.

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Outline

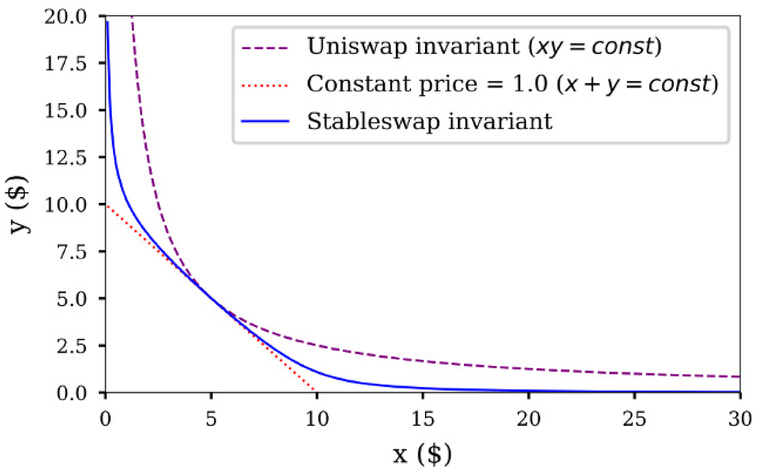
Executive Summary

Four trends defined Ethereum DeFi in Q3 2020: 1) the rise of Automated Market Makers, 2) governance tokens and yield farming, 3) forks, derivatives, and network effects, 4) and "weird DeFi."

THE RISE OF AUTOMATED MARKET MAKERS (AMMS)

The trend: *While stable coins and lending platforms have long been the centers of activity in the DeFi ecosystem, Q3 created a number of new, compelling decentralized exchange (DEX) business models. Since the start of Ethereum, there have been a variety of ways to swap tokens — from the more traditional order book methods to token-based models. It is clear that there are certain security and pricing advantages that DEXs have over their centralized counterparts. Yet it wasn't until Q3 of 2020 that one could really say decentralized exchanges arrived; in the month of September, Uniswap's trade volume was $15.4 billion, nearly $2 billion higher than Coinbase's in the same month. DEXs that use automated market maker software (AMMs) now represent 93% of the decentralized exchanges market. Uniswap, Curve, and Balancer are some of the biggest AMMs, but a whole new crop of DeFi companies have popped up in the past quarter, some attempting different approaches to create optimal prices for swapping tokens and avoiding impermanent loss.*

The importance: *AMM platforms were able to simultaneously achieve three outcomes this quarter: rapidly grow liquidity for hundreds of different token pairs, provide a robust decentralized option for swapping between tokens, and benefit a broader community of individuals that add liquidity to an exchange by rewarding them with new governance tokens. These new tokens — think of them as economic participation or voting rights in some cases — are an important invention unique to Ethereum. For example, users that deposit USDC into Curve get cUSDC in return, which accrues value over time as the user collects trading fees. The success of AMMs in Q3 proved that AMMs were ready for the mainstream — so much so that the total value of AMMs on Ethereum surpassed $4 billion. Instead of Wall Street market makers or centralized cryptocurrency exchanges collecting the lion's share of trading fees, AMMs provided returns and voting rights to anyone willing to add liquidity to a contract — whether audited or not. When before has a borrower earned a return on a debt from their lender?*



GOVERNANCE TOKENS AND YIELD FARMING

The trend: *Following the release of Compound Finance's $COMP token in Q2, we expected Q3 to continue the proliferation of governance token launches used in part for incentivizing liquidity in DeFi protocols, and to give power to token holders to vote on changes to the protocol designs. Yield farming, a new concept in Q3, can be described as a way of seeking the most reward for putting various Ethereum assets to work. With varying strategies and degrees of success, $BAL, $CRV, $UNI, $YFI, and others launched in Q3.*

The importance: *The incentive of yield farming to generate governance tokens both instigated and leveraged some of the more unique properties of Ethereum. As yield farmers moved liquidity into different pools to earn yield, a strong speculative DeFi bull market created rapid, high demand for new types of governance tokens, and pushed the gas costs of Ethereum to all-time highs. Similarly, governance tokens like Uniswap's $UNI introduced a new model for launching by giving each Ethereum account that had previously interacted with the protocol 400 $UNI tokens. While the summer created a frenzied rise and fall of different yield opportunities, we predict that these new inventions for rewarding individuals who provide liquidity to stick around — especially as user experience improves, key management becomes more decentralized, and individuals providing liquidity can earn more attractive interest rates than a bank account or legacy asset.*

Top 100 DeFi tokens by Market Capitalization

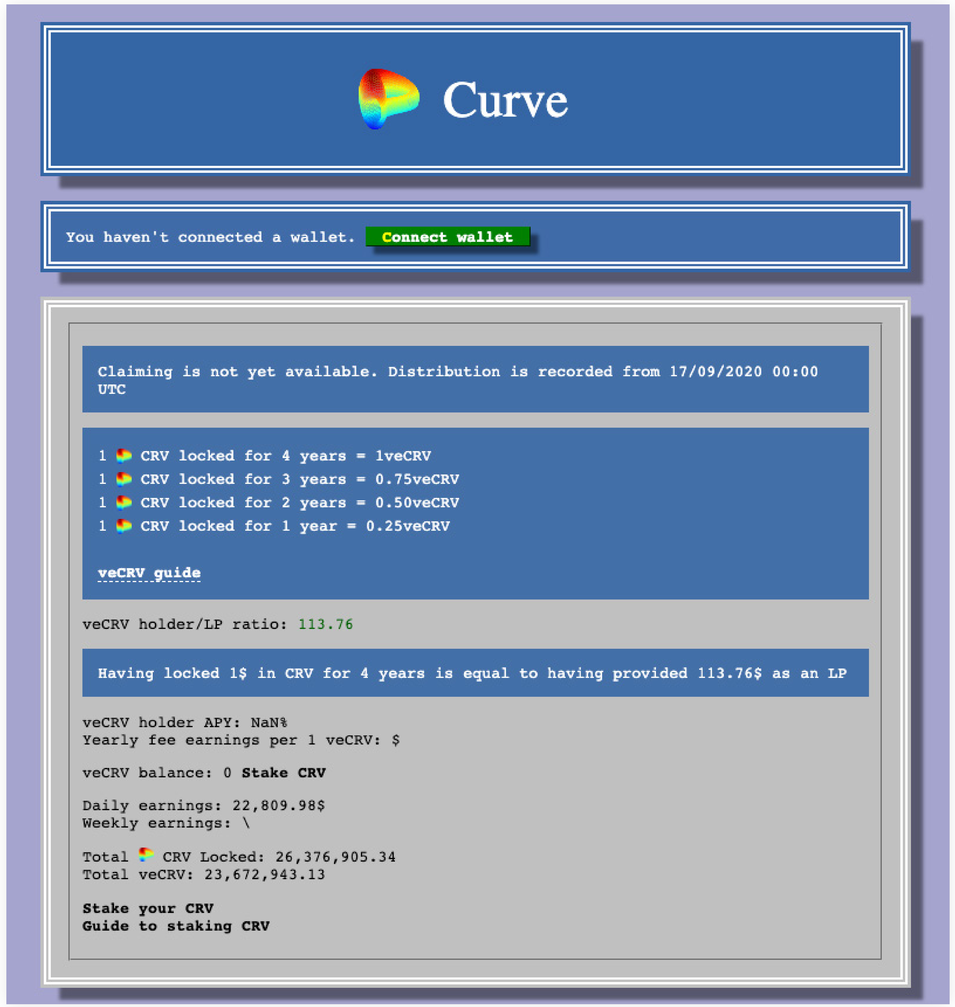
Top 100 DeFi Tokens by Market Capitalization

Total Market Cap: $15,805,380,221 Tweet

#	Name	Market Cap	Price	Change 24h	Change 7d	
1	Wrapped BTC Bitcoin	$1,417,355,341	$12,771.86	-1.41%	13.44%	Trade
2	Compound Dai Compound	$1,242,487,094	$0.02	-0.03%	-0.63%	Trade
3	Dai MakerDAO	$946,279,706	$1.01	-0.04%	-0.69%	Trade
4	Uniswap WBTC/ETH Pool Uniswap V2	$677,135,765	$494,954,545.74	-1.84%	12.73%	Trade
5	Uniswap USDC/ETH Pool Uniswap V2	$549,437,731	$50,216,738.04	-1.05%	5.86%	Trade
6	Maker MakerDAO	$520,886,234	$577.47	-3.91%	7.67%	Trade
7	Uniswap ETH/USDT Pool Uniswap V2	$499,376,085	$50,182,844.19	-1.15%	5.90%	Trade
8	EthLend Token Aave	$489,780,169	$0.39	3.55%	-5.09%	Trade
9	Synthetix Network Token Synthetix	$433,591,631	$3.71	-6.22%	-7.94%	Trade
10	UMA Voting Token v1 ERC20	$431,991,500	$7.81	-5.85%	1.80%	Trade
11	Uniswap DAI/ETH Pool Uniswap V2	$431,832,969	$47.82	-1.16%	5.49%	Trade
12	Yearn.finance Yearn.finance • Vaults	$425,405,938	$14,197.52	1.98%	1.32%	Trade

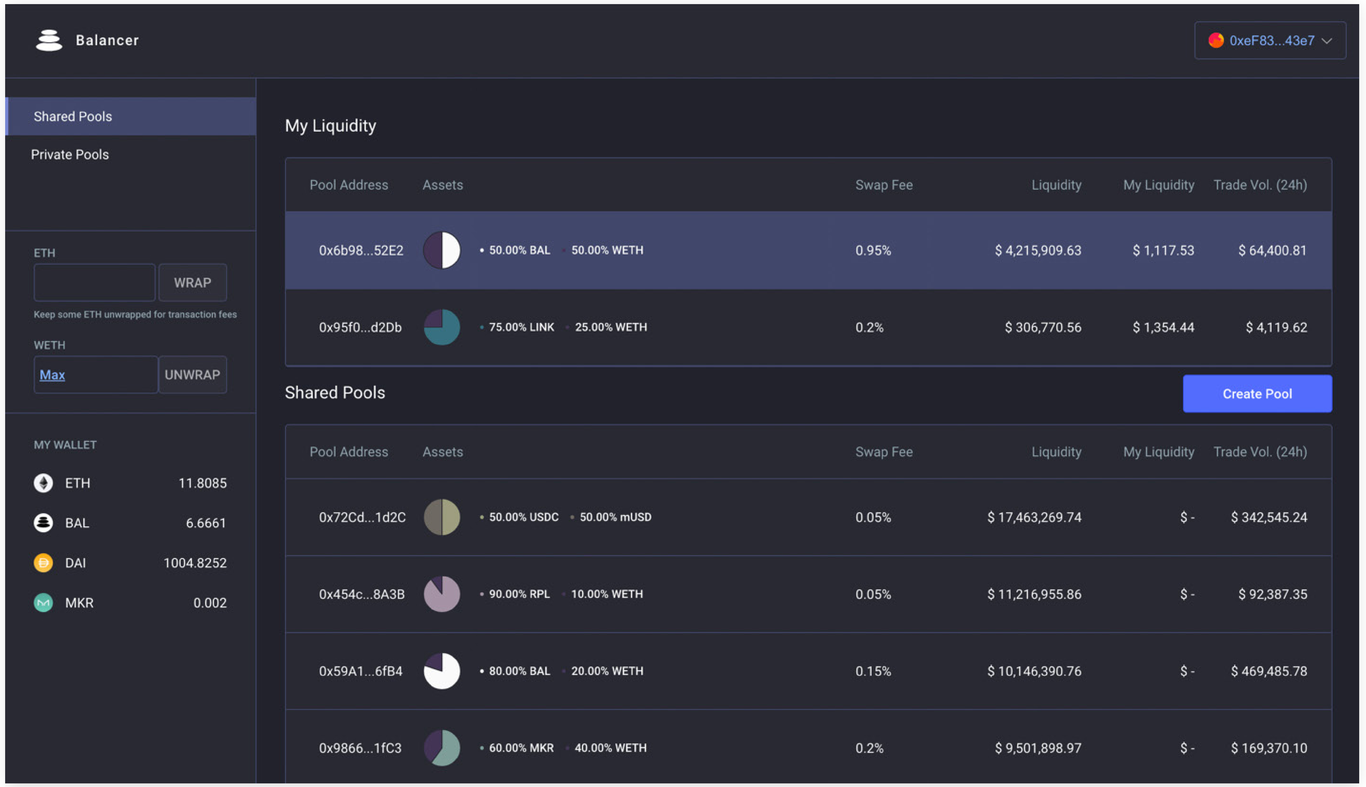
[Source: defimarketcap.io]

Curve Interface



[Source: curve.fi]

Balancer Interface



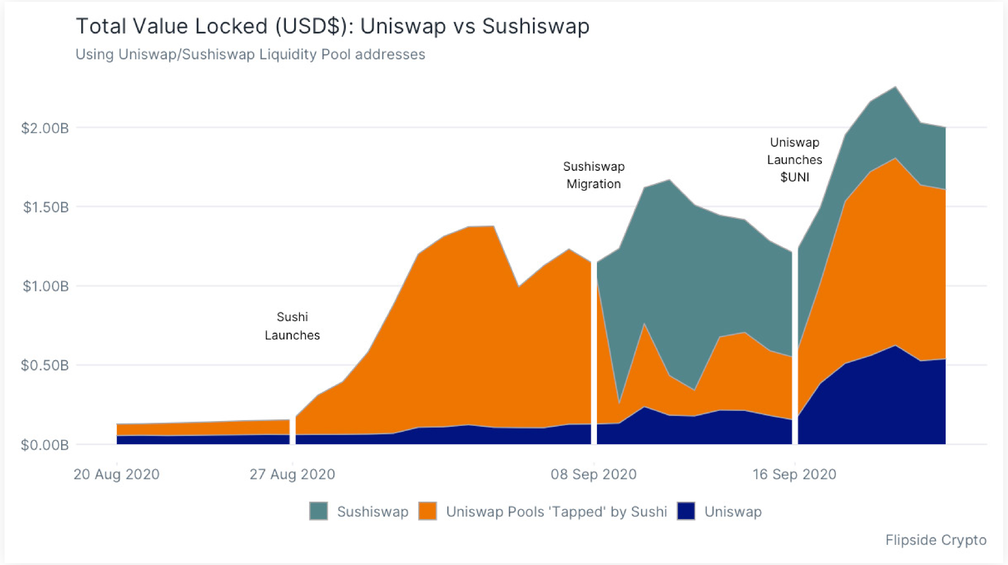
[Source: balancer.finance]

FORKS, DERIVATIVES, AND A GROWING NETWORK

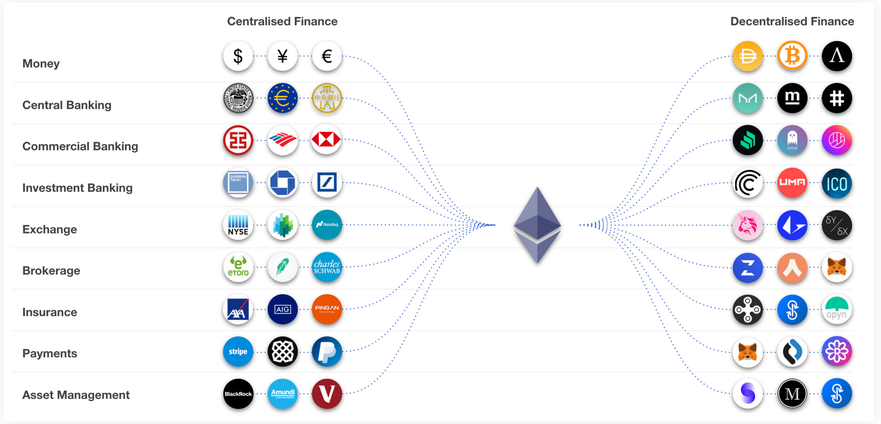
The trend: *This quarter was also not without a host of forks, copycats, and (most importantly) meme-based tokens attempting to capitalize on the popularity of AMMs and yield farming. SushiSwap and CREAM launched as forks of Uniswap and Compound. The details and data surrounding these forks brought to light how network effects, community popularity, and even the very nature of open source software are unique to DeFi.*

The importance: *The ability for anyone to fork and duplicate open source code has long been a potential concern and subject of game-theoretical analysis in the Ethereum and DeFi communities. The argument against perceived downsides of public code has been the resilience of network effects, which theoretically serve as protection against a protocol suddenly losing all its users to an identical competitor. SushiSwap launched as a fork of Uniswap and CREAM launched as a fork of Compound. In some cases, these forks have provided new mathematical models for protecting against impermanent loss and slippage on trading pairs. But their differing degrees of success also highlight the negative side effects that left some creators and network participants feeling burned, which opens critical questions about the legitimacy of anonymous token founders, and broader questions about the ethics using imitative code for personal gain.*

Total Value Locked (USD): Uniswap vs. Sushiswap



[Source: Flipside Crypto]

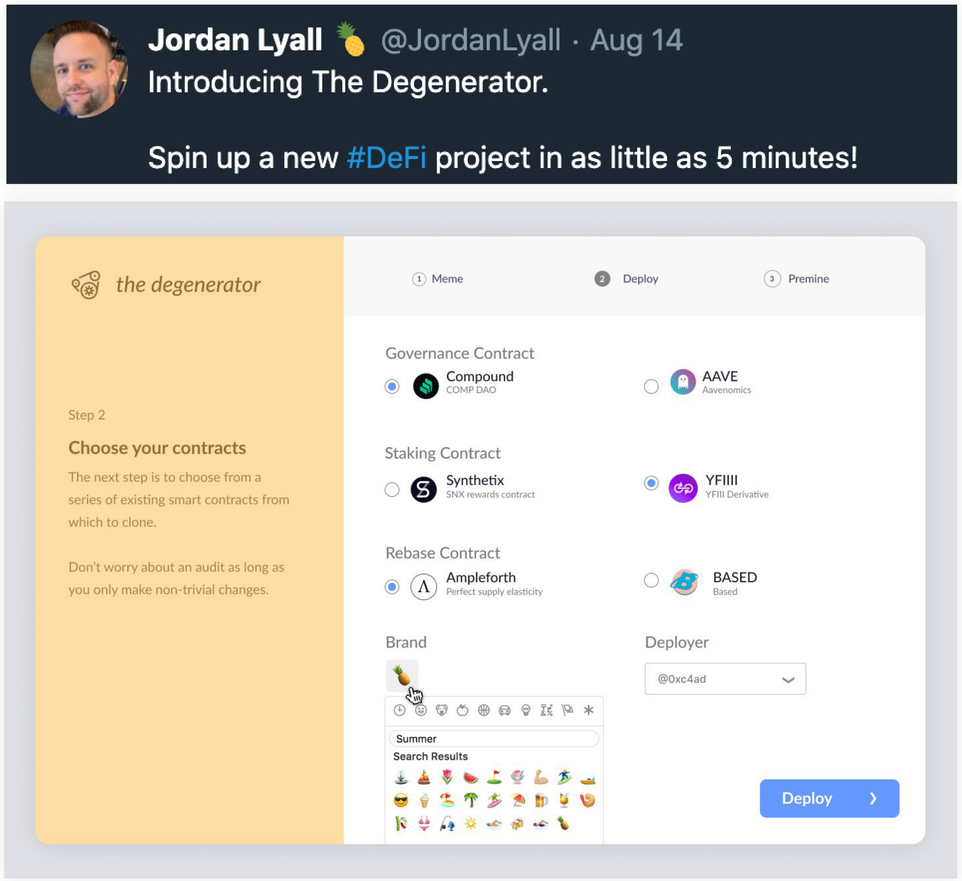


WEIRD DEFI

The trend: *In addition to the creation of financial protocols, DeFi began to incorporate memetic internet culture into the lexicon. Speculation resulting from interest rate maximization (i.e., yield farming) was largely driven by conversations on social media and chat channels like Twitter, Telegram, and Discord. It is impossible to overstate the role of these social channels in driving much of the DeFi activity in Q3 as well as its breakneck pace. Of note is the concept of Weird Twitter: a subset of social media filled with absurdist humor and Internet subculture. This approach spilled over to DeFi, as projects like Based.Money and Meme Protocol ("Don't Buy $MEME") grew in popularity with crypto influencers. Speculators themselves began to call themselves "degen" investors, taking very high-risk bets on anonymous new forks and protocols, and exposing themselves to 1000% returns as well as scams and large losses, or "rug pulls."*

The importance: *While the trend may seem absurd, we note that Internet culture and crypto assets have long been linked, both in terms of economic philosophy, as well as community distribution. As investors began to see financial activity as a game, the outcome created protocols that combined money with visual images and self-referential humor. This in turn led to the creation of projects that used financial mechanics, like collateralizing assets for a synthetic return, in order to earn collectible social assets, like images, cards, and other non-fungible tokens. As a result, crypto art tokens known as non-fungible tokens or NFTs (ERC-721, ERC-1155) started to meaningfully grow and be attached to protocols with large financial volumes. Crypto art and collectibles marketplaces like Rarible and OpenSea have seen increasing purchasing volume in Q3, and personal as well as social tokens have flourished via projects like Roll and Async Art.*

Jordan Lyall of ConsenSys posted a DeFi project generator image on Twitter as a joke and inadvertently kickstarted the Meme Protocol, which has a market cap over $5 million less than 3 months later.



Introduction: Q3 2020 DeFi

DeFi in the third quarter of 2020 has been defined by the largest bull run since the ICO boom of late 2017 and early 2018. The Q3 bull run—which we perhaps can call the DeFi bull run—began in the last two weeks of Q2 with the release of Compound's governance token $COMP. The excitement of $COMP continued into Q3, with multiple governance tokens launching and driving immense attention, activity, and speculation on lending platforms and DEXes.

Leading up to and during the height of the bull run, Ethereum DeFi experienced accelerated innovation in a short period of time. This pattern of "immense network pressure" happening on a cyclical basis is something we've discussed in previous DeFi reports and a trend we anticipate happening again as DeFi user experience improves, key management becomes more decentralized, and individuals providing liquidity earn interest more attractive than a bank account or traditional asset. Even in the afterglow of this summer's DeFi bull run, an undeniable conclusion is that very smart financial and technical minds are increasingly attracted to the financial capabilities of Ethereum. When these periods of rapid innovation occur, we have observed both an increase in ETH locked in DeFi protocols and a spike in the average price of gas. As the Ethereum community prepares for an upgrade to the base protocol, and the Eth2 Deposit Contract goes live in Quarter 4 of 2020, this cycle could see major changes as DeFi continues to drive major activity on Ethereum.

ETH and USD Locked

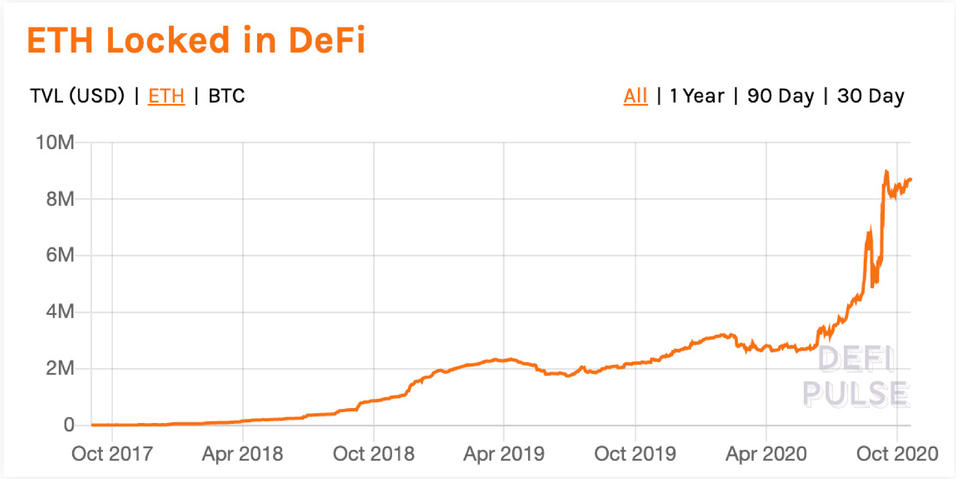
OVERVIEW

Decentralized finance runs on smart contracts that automate new, blockchain-based financial instruments. A popular way to look at the success of DeFi is measuring the amount of "locked" funds in DeFi. "Locked" funds refers to the funds that consumers have sent (and decided to entrust) to the smart contracts that make up the DeFi ecosystem. A simple analogy might be looking at the cash people keep under their mattress as compared to the cash they trust to banks and brokerage accounts. If people move more of their cash from under their mattress to their bank, they trust their bank to safeguard or compound their wealth more than they fear their bank losing it. An increasing volume of funds locked in DeFi over time represents growing confidence among consumers to place their money in the hands of smart contracts in order to interact with these new financial tools. There are two ways to measure funds locked in DeFi: ETH locked and USD locked.

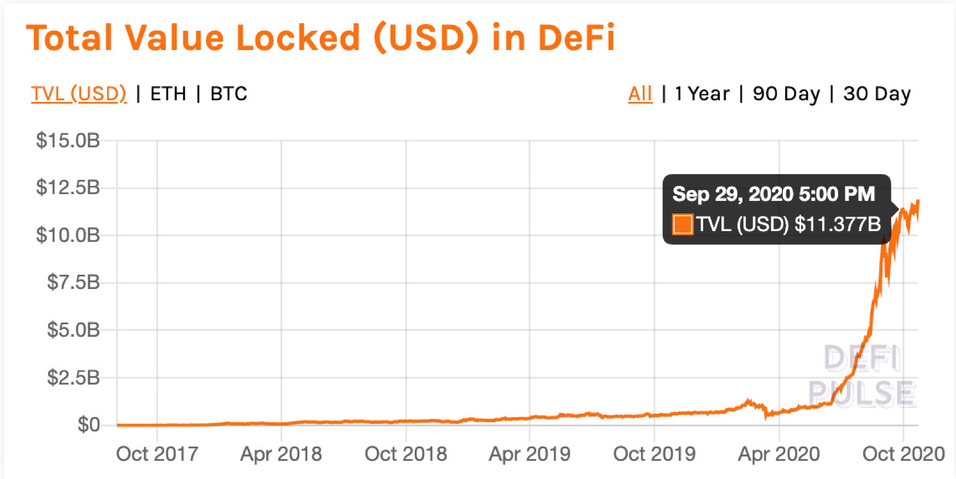
- ETH locked measures the amount of ETH and WETH (ETH represented as an ERC-20 token) that has been sent to these smart contracts.

- USD locked measures the USD value of the funds locked in DeFi smart contracts. USD locked is directly correlated with the market price of ETH. Even if the amount of ETH locked in DeFi stays the same, the USD locked value would increase or decrease as the USD price of ETH changes.

1 | ETH Locked in DeFi protocols, All Time



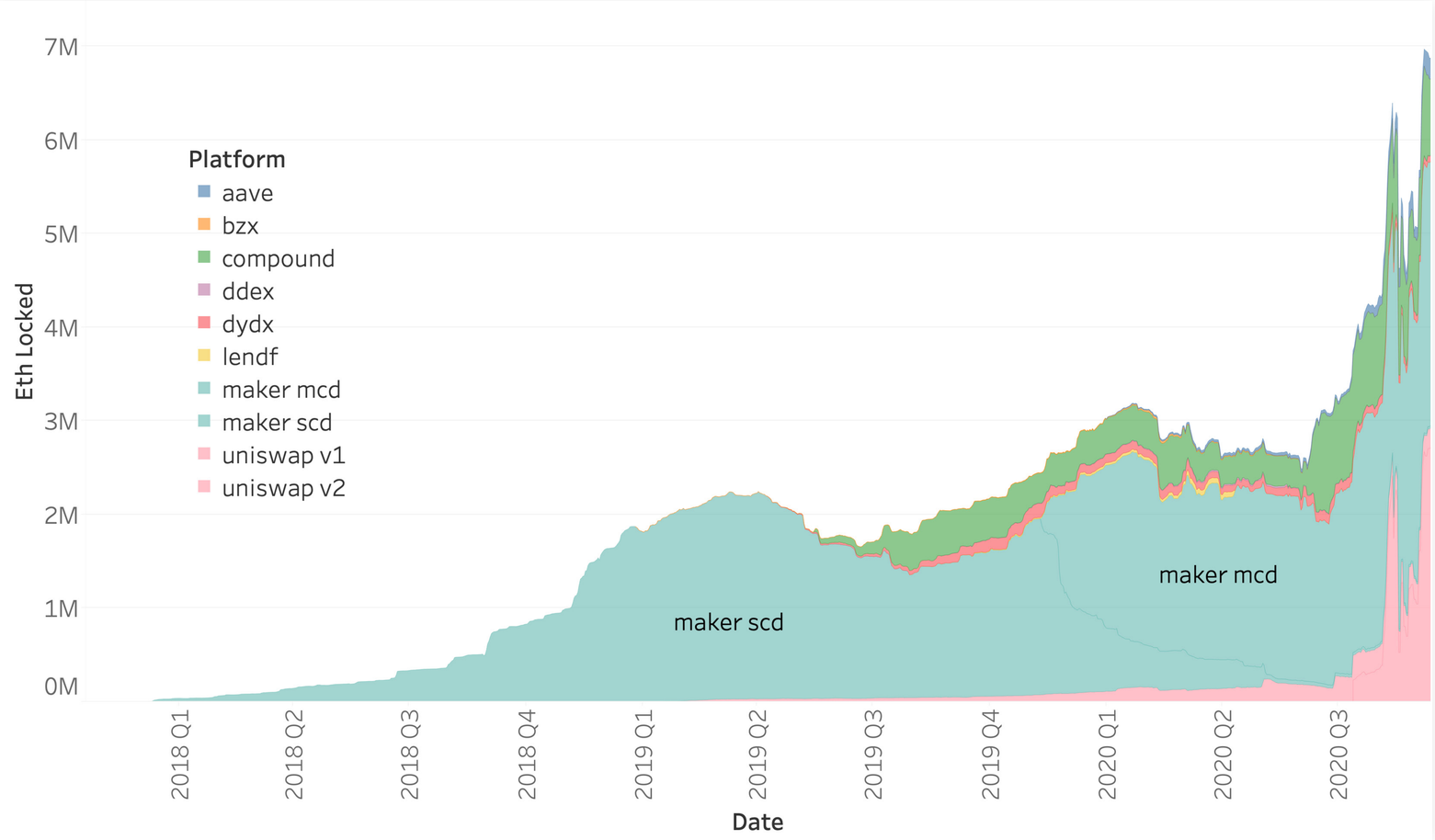
2 | Total Value (USD) Locked in DeFi Protocols, All Time



ETH LOCKED

Since early 2019, the overall amount of ETH locked in Ethereum DeFi protocols has increased, with a few recognizable dips (figure 1). Most recently, the March 2020 “Black Thursday” event triggered the largest decrease in ETH locked in recent history. We can distinctly notice at the very end of Q2 2020 the amount of ETH locked began to increase quickly. This was catalyzed by Compound (in green), which had meaningful inflows in the last two weeks of June 2020 (figure 3).

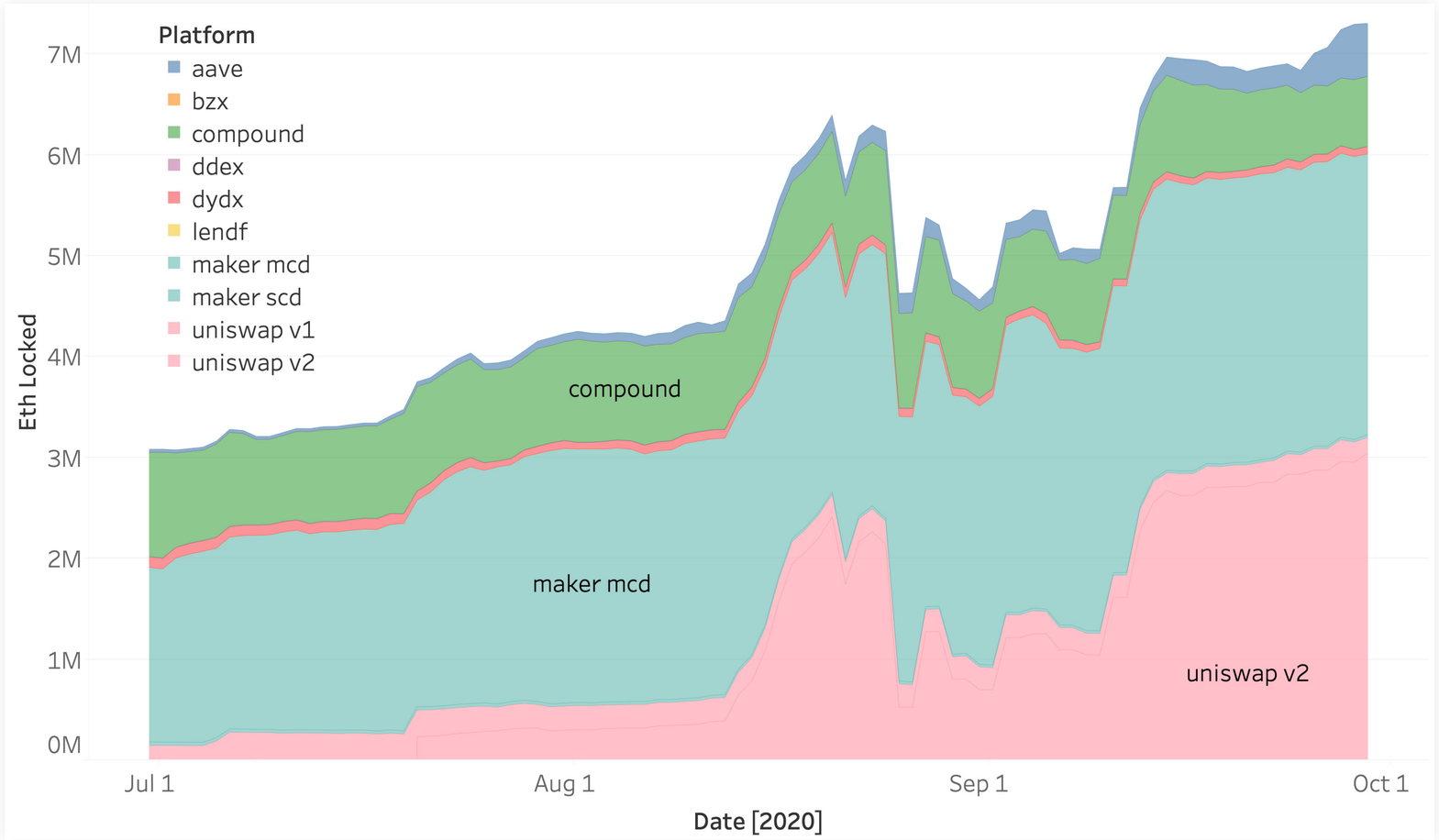
3 | ETH Locked in Eight Incumbent Ethereum DeFi Protocols, All Time



Zooming in on Q3 2020 (figure 4), ETH locked in DeFi increased to a new all-time-high, continuing the trend that started at the very end of Q2. Based on the protocols that we have analyzed in past DeFi reports, we see 8.96M ETH locked in these DeFi protocols on September 15th, 2020, the peak for the third quarter (Figure 1).

Uniswap has driven about a quarter of the ETH locked in DeFi this quarter. A protocol update in Quarter 2 introducing token swaps, combined with the launch of the UNI governance token, appear to be driving factors in increasing the amount of ETH locked, as well as Uniswap's share of ETH locked when compared to other platforms. Uniswap's trading volume surpassed Coinbase. Maker, Aave, Compound, and Curve continue to be the other largest contributors to ETH locked in DeFi.

4 | ETH Locked in Eight Incumbent DeFi protocols, Q3 2020



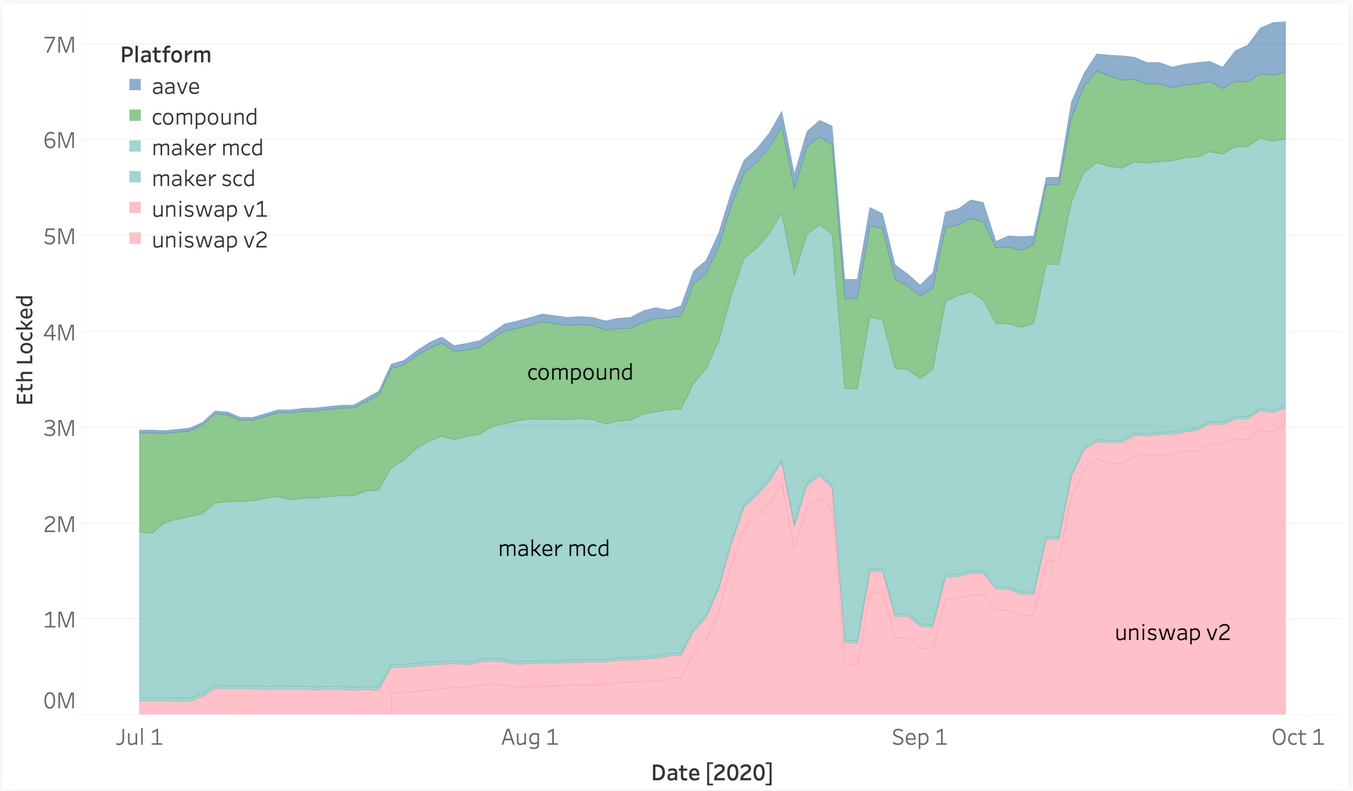
Major Protocols

Of the core DeFi protocols that have been around since before Q3 2020, four in particular saw significant activity, growth, tumult, and/or attention this quarter: Maker, Uniswap, Compound, and Aave. Together, these protocols accounted for 7 million of the 8.4 million of the total ETH locked in DeFi by the end of the quarter.

Quarter 3 saw more ETH locked in these protocols, correlated with the following events:

- Compound continued the distribution of COMP governance token, which was first released in mid-June, and continued to see claims over the course of Q3.
- On August 19th, Maker raised the ETH debt ceiling, and as a result, the DAI debt ceiling via a vote amongst MKR governance token holders.
- The UNI protocol token launched in mid-September and airdropped to all users of Uniswap prior to September 1st, 2020.
- Uniswap's move to version 2 of the protocol launched in early Quarter 2, and gained traction amongst users in Quarter 3.
- Aave introduced the first Aave Improvement Proposal on September 25th, proposing a move from the LEND token to AAVE token as the governance token of the protocol.

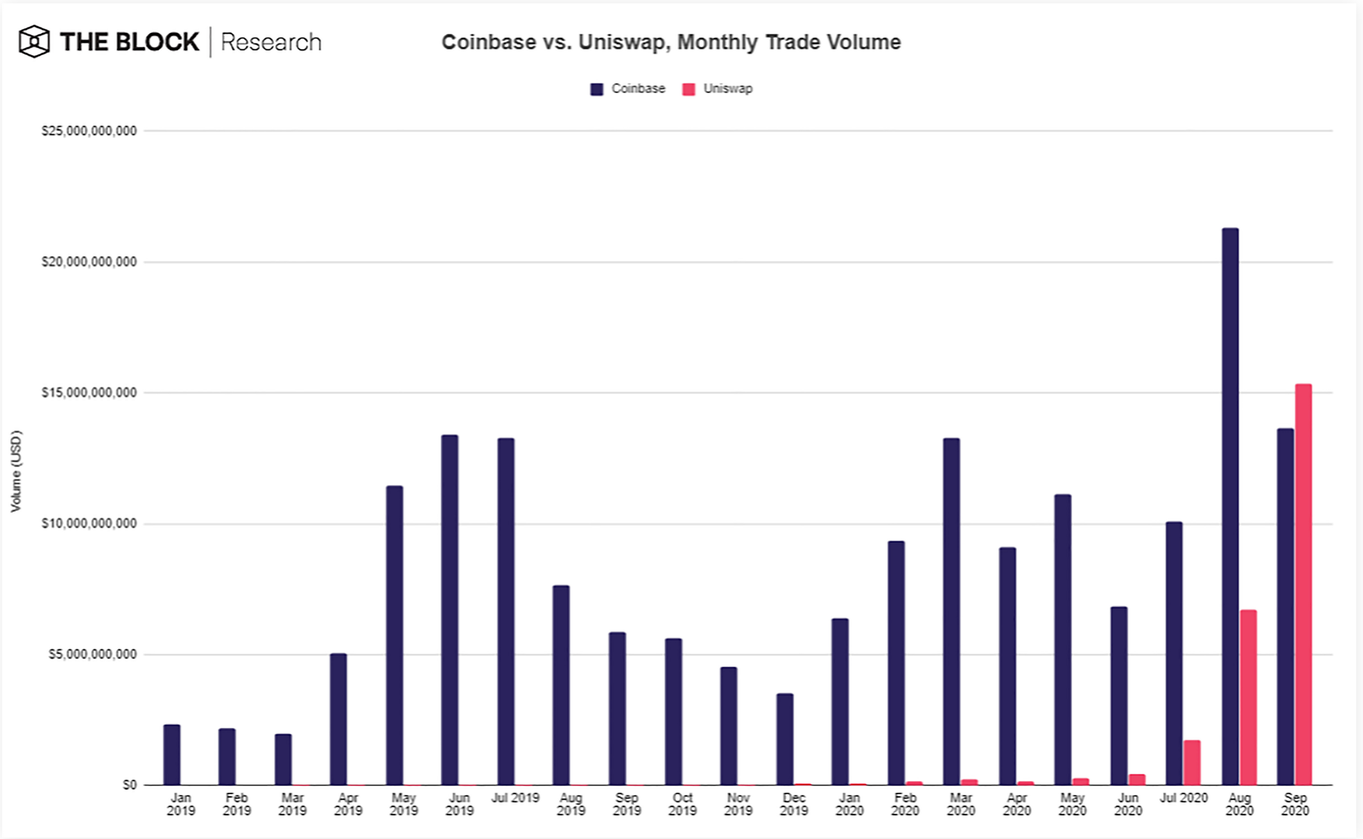
5 | ETH Locked, Uniswap v. Compound v. Aave v. Maker



The Rise of Automated Market Makers (AMMs)

Most Ethereum ecosystem participants are aware of the importance of stablecoins like DAI to the growth of DeFi. Yet could the real breadth of decentralized finance really exist without decentralized exchanges? While the last few years have introduced a variety of models for swapping tokens — from the more traditional order book methods to token-based models — it is clear that there are certain security and pricing advantages that DEXs have over their centralized exchange counterparts. Yet it wasn't until Q3 of 2020 that decentralized exchanges truly took off; in the month of September, Uniswap's trade volume was $15.4 billion, which was nearly $2 billion more than Coinbase that month.

6 | Monthly Trade Volumes of Coinbase vs Uniswap, 2019–2020



[Source: The Block]

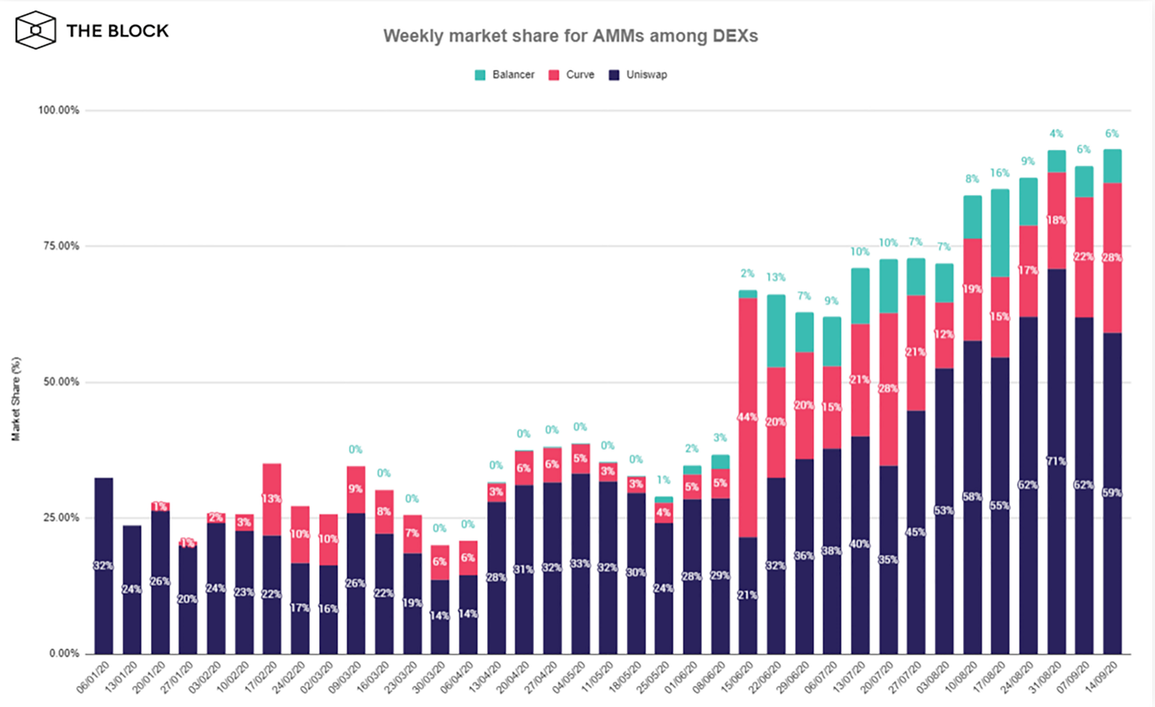
One of the major trends that made this possible was the rise of automated market making (AMMs) software to algorithmically create token trading pairs. AMMs now represent 93% of the decentralized exchange market today. Uniswap, Curve, and Balancer are some of the largest AMMs by volume, but a whole new crop of DeFi companies have popped up in the past quarter, some attempting different approaches to create optimal prices for swapping tokens and avoiding impermanent loss.

While AMMs could seem like a sophisticated mouthful unique to the lexicon of self-executing smart contracts on Ethereum, it is actually a derivative of an older technology. In the 1990s, Shearson Lehman & Brothers were the first to use automated market making software, technology hastened not only because it was clearly more convenient than relying on a roomful of people to complete order books by hand, but because of a series of price manipulation scandals from market makers on the New York Stock Exchange and Nasdaq. AMMs were seen as a valuable way to reduce the chances of human error or manipulation, and also left a clear audit trail for regulators. Flash forward to 2020, and the suitability of AMMs for Ethereum is increasingly apparent, with a few key innovations.

AMM platforms like Uniswap, Curve, and Balancer were able to simultaneously achieve three goals this quarter: rapidly grow liquidity for hundreds of different token pairs, provide a robust decentralized option for swapping between tokens, and benefit a broader community of individuals that add liquidity to an exchange by rewarding them with new tokens. These new tokens (you can think of them as economic participation or even voting rights in some cases) are an important invention unique to Ethereum. For example, users that deposit USDC into Curve get cUSDC in return, which accrues over time as the user collects trading fees.

The success of AMMs in Q3 proved that AMMs were ready for the mainstream — so much so that the total value of AMMs on Ethereum exceeds $4 billion. Instead of Wall Street market makers or centralized cryptocurrency exchanges collecting the lion's share of trading fees, AMMs provided returns and voting rights to anyone willing to add liquidity to a contract — whether audited or not. When before has a borrower earned a return on a debt from their lender?

7 | Weekly Market Share for Automated Market Makers among Decentralized Exchanges, Q1-Q3 2020

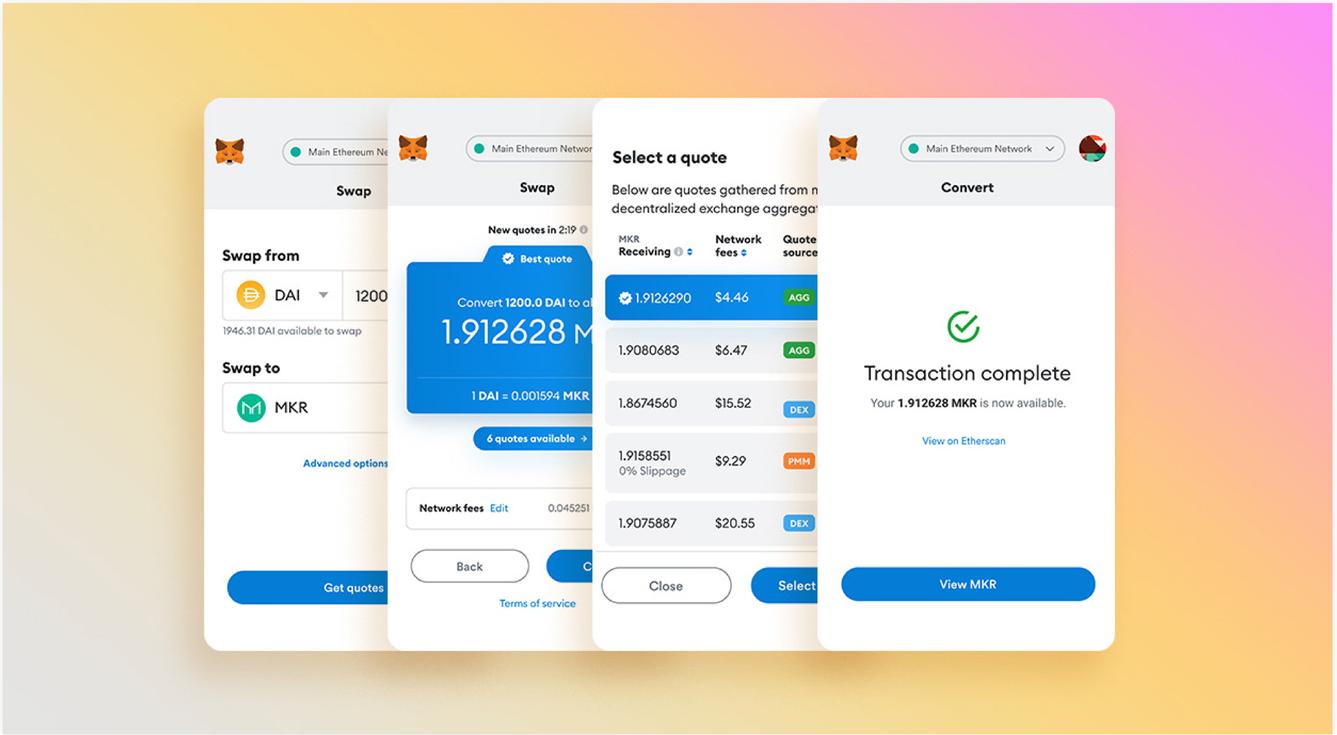


[Source: The Block]

There are emerging tradeoffs that come with Ethereum-based AMMs, such a new concept that DeFi users are calling "impermanent loss." The essence of impermanent loss is that if a user adds liquidity to a pool, let's say ETH, and the price of ETH on another exchange increases by 10% overnight, the value of the ETH they locked in a pool may not increase by the same amount. Why is this? The main reason is that while AMMs are great for automating liquidity, they don't perfectly represent the value and sentiments traders may actually give an asset. The token price on another exchange may be different, and traders will engage in arbitrage, effectively extracting capital from the liquidity the user added to a token pair. However, as long as the relative prices of tokens in the AMM return to their original state when a user entered the AMM, there is no loss, and users would still earn rewards through trading fees.

AMMs also have varying degrees of slippage and token liquidity, which makes it easier for arbitrage, but sometimes difficult for users to find the best trades. In Q3, MetaMask began offering a token swap feature which draws liquidity from AMMs and DEXes such as Uniswap, AirSwap, 0x API, 1inch.exchange, Paraswap, Totle, and dex.ag so that users don't need to navigate to as many AMMs and DEXes in order to choose the best trade with for the lowest gas cost.

8 | MetaMask Swap feature, which aggregates quotes from various AMMs and DEXes

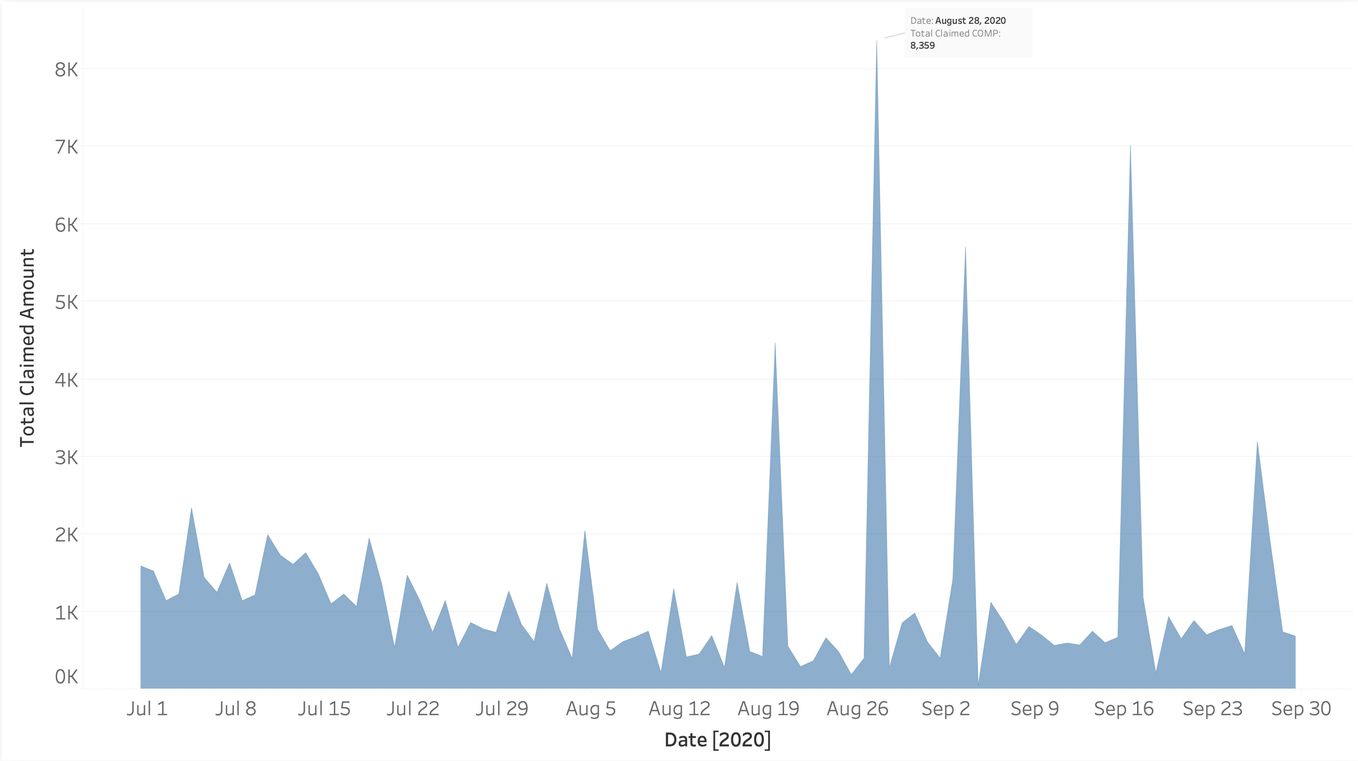


Governance Tokens and Liquidity Mining

Liquidity mining (or more colloquially, *yield farming*) emerged as a critical instrument in DeFi at the end of Q2 with the release of the COMP governance by the Compound team. As a governance token, COMP was aligned with prior concepts; governance tokens have long been a proposed strategy to decentralize the operations of a company. The method of releasing COMP, however, was quite novel. When DeFi users provided liquidity to the Compound platform, by participating in financial activity such as borrowing a crypto asset at some market interest rate, they received the COMP token as a reward. As a result, Compound fast-tracked more liquidity into the platform and achieved their goal of distributing governance tokens to begin the process of decentralizing. Simultaneously, users received a token without trading away other assets and either gained the ability to influence Compound's evolution or benefited from a speculative market by trading away their earned COMP.

Since the release of COMP at the end of Quarter 2, there has been a considerable jump in the claiming of the tokens in August and September.

9 | COMP Claimed in Quarter 3



Other DeFi protocols took notice and began releasing governance tokens of their own; some through mechanisms that resemble Compound's strategy, and others through newer mechanisms like issuance within a decentralized exchange. In addition to COMP, some of the highest profile governance token releases coming from established DeFi protocols this quarter were $YFI, $CRV, $BAL, and $UNI.

Among these major Q3 governance tokens, $CRV and $UNI are especially interesting. Curve — which was the fourth largest DeFi protocol at the end of Q3 — served as a major vehicle for liquidity mining in Q3. The community was waiting for the release of $CRV, which was anticipated to happen at some point in August. On August 13th, an anonymous user deployed all of Curve's smart contracts, including its $CRV and DAO smart contracts. The result was a few hours of confusion during which Curve did not confirm if the smart contracts were legitimate and secure, but some DeFi users decided to take the risk and scooped up $CRV while much of the community was waiting for confirmation or resolution. Curve audited and confirmed the deployed contracts were indeed the correct ones a few hours later. Some considered the situation to be an irresponsible and unfair distribution of tokens; others considered it the consequence of inevitable risk vs. reward that exists in novel DeFi mechanisms.

Uniswap has been the largest and most actively-used DEX in past quarters. In mid-September, Uniswap announced the release of its governance token, $UNI. Unlike other protocols that released governance tokens through liquidity mining, Uniswap decided to reward users of Uniswap with $UNI. Uniswap airdropped 400 $UNI to each and every wallet that had executed a trade or served as a liquidity provider on the platform before September 1. The community feedback so far has been notably positive. One point of potential criticism has been that DEX aggregators like Dharma and 1inch were not included in the airdrop. There is now a proposal on Uniswap's governance portal to retroactively airdrop $UNI to those addresses.

DeFi Lending Platforms

Among DeFi protocols this quarter, lending platforms have seen tremendous growth in ETH locked and daily active users (DAU). These lending platforms in particular have benefited from the growth in yield farming and governance token mechanisms, which incentivize DeFi users to pour liquidity into the protocols to earn rewards. Yearn and bZx are two such platforms that followed the typically dramatic growth pattern of lending platforms in 2020.

BZX

In Q1, bZx experienced two security incidents that resulted in funds being stolen from the platform by malicious actors. The bZx protocol suffered a drop in DAU and locked ETH, and spent much of Q2 under the radar. On September 1st, bZx relaunched its protocol along with its governance token BZRX. The update promised improved features, enhanced security (including two outside security audits), and a refined distribution mechanism for the governance token. In mid-September, bZx experienced its third security incident of the year; this one leading to a $8.1M USD loss due to a bug in a smart contract that allowed for the duplication of assets.

YEARN.FINANCE

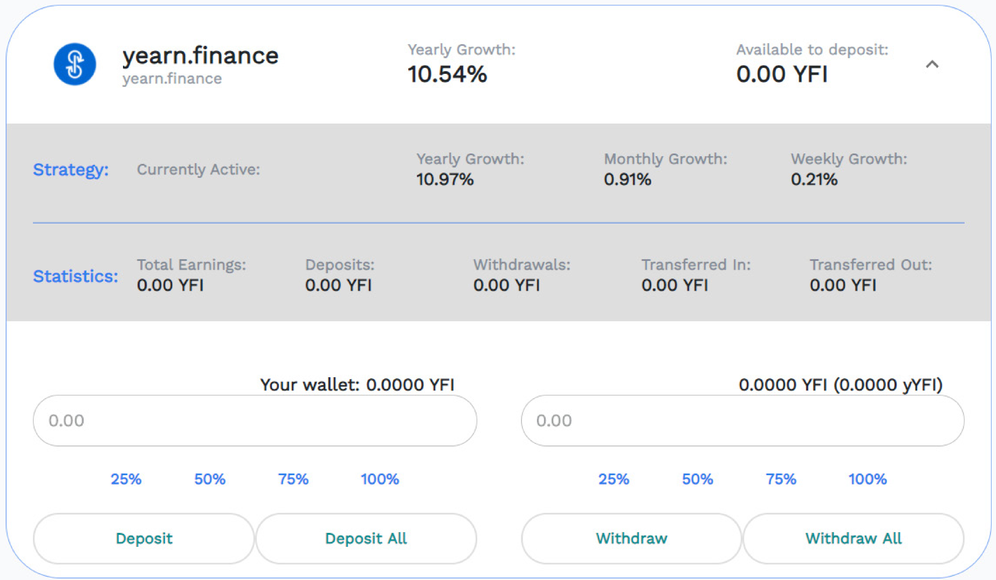
Yearn.Finance is a DeFi protocol launched in Q3 by Andre Cronje. Simply stated, Yearn serves as a gateway to various DeFi products. It solves a unique problem that was acutely highlighted during the height of yield farming — information gathering and decision-making about where users deposit their funds in order to receive the highest yield. One of Yearn's first products was the automation of yield farming; users deposit funds and the protocol moves the funds around in order to constantly earn the best yield on platforms where liquidity mining was rewarding governance tokens. This set of features reminds us of a fixed income mutual fund, which distributes interests to investors and then performs the active selection of particular interest-rate maximizing opportunities. However, in this case, the software and the equivalent of the investment committee is decentralized in nature.

For new and veteran DeFi users alike, the improved user experience of a single portal to access optimized liquidity is a tremendous asset to the development of the DeFi space as a whole (similar to the UX benefit provided by DEX aggregators).

Yearn's own governance token, YFI, earned particular attention this quarter. In mid-July it launched at ~$44, peaked at ~$43,000 in mid-September, and ended the quarter ~$24,000. The YFI governance token earned interest from the community for two particular reasons. First, the total supply of YFI is capped at 30,000; creating a natural pressure for supply/demand as the popularity increases. Second, Andre

Cronje reserved none of the 30,000 YFI for himself, signaling to the community that he had no personal monetary intentions of opportunistic selling (i.e., “dumping”) or retaining absolute control over the evolution of the protocol.

10 | Yearn.finance Interface



DeFi Protocol Forks

As a network of open source contracts, the lines of code that run DeFi (and Ethereum as a whole) are accessible and visible to anyone. This comes with notable benefits for security, accountability, technical equality, and reduced barriers to entry. One recurring point of contention, however, has been the question of ownership and competition. If a protocol cannot own a smart contract (i.e. cannot make it closed and private), what stops anyone else from forking the entire company and stealing all of its users? What is the incentive (beyond altruism) for companies to pour time, effort, and money into making highly performant, usable, dapps on Ethereum?

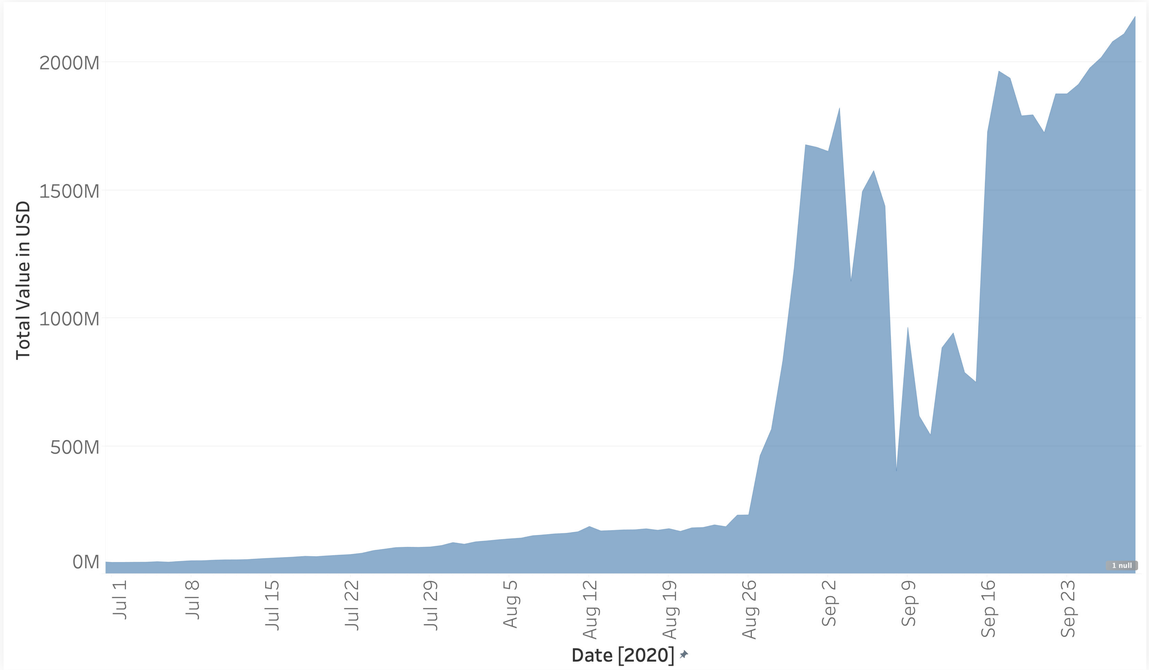
We saw this concern around competitive forking materialize this quarter. Two notable examples are CREAM Finance and SushiSwap.

SUSHISWAP AND SUSHI

SushiSwap launched on August 27 as a fork of Uniswap. Out of the gate, SushiSwap launched its platform along with its SUSHI governance token, which was earned through liquidity mining. The result was a drain of liquidity on the Uniswap platform as users withdrew their funds to provide liquidity to SushiSwap and earn SUSHI as a reward. In four days, over $1B USD in liquidity flooded into SushiSwap, popularizing the term ‘vampire protocol’ or ‘vampire scheme’ to describe SushiSwap’s assumed strategy of leeching liquidity from Uniswap.

SushiSwap seemed, initially, to prove the forewarned consequences of building on an open source protocol layer. A new protocol came onto the scene and forked a successful company, then siphoned away users by offering a slightly better incentive.

11 | Total Value Locked (USD) in Uniswap, data from DeFi Pulse



On September 5, the pseudonymous founder of SushiSwap, Chef Nomi, liquidated their substantial personal holdings of SUSHI for 38,000 ETH. The SUSHI price fell from ~$4.90 to ~$1.20 in one day. The backlash was immediate and the community denounced the liquidation as an exit scam executed by Chef Nomi for personal profit. In the days and weeks following the incident, Chef Nomi transferred the keys to another DeFi dev in the space and returned the ~$14M in ETH, announcing that he would no longer be part of SushiSwap's development or governance. The ETH locked in Uniswap shot up to 2.7M on September 15th and has been trending upwards steadily since that date.

The relationship between Uniswap and SushiSwap demonstrates what a future with more DeFi forks could look like. SushiSwap's initial launch proved that concerns of competitive forking are based in truth: even longstanding, well-regarded protocols could lose users and liquidity to the launch of a forked platform with slightly improved or different incentives. The saga of SushiSwap, however, demonstrates that the network effects of well-established protocols are strong, and there can be considerable risks for users who move too hastily to new, unproven protocols.

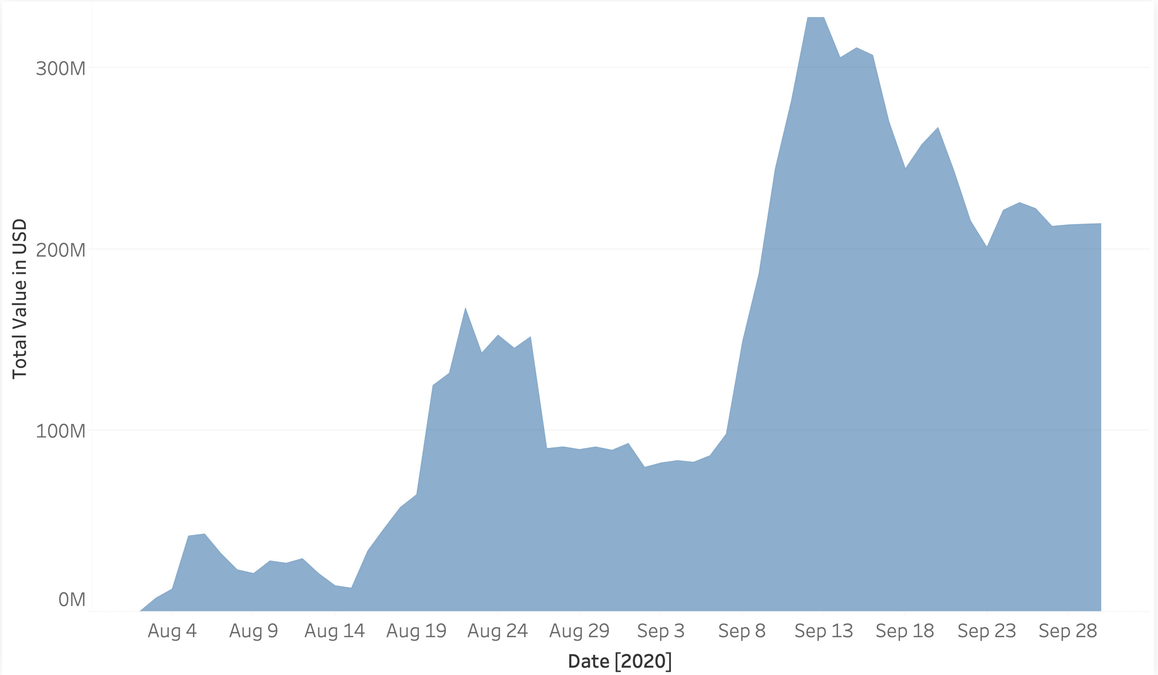
CREAM FINANCE AND CREAM

Cream Finance launched in July as a fork of Compound Finance with a retro-inspired UI and a governance token that was issued as a liquidity incentive, similar to COMP. Unlike SushiSwap, Cream was not a 'vampire attack' on Compound. Instead, Cream attempted to complement Compound by listing a wider range of assets, with a particular focus on DeFi assets. Cream sought to incentivize Compound's participation in its protocol by issuing 2.5% of total outstanding $CREAM supply to them. Compound founder Robert Leshner is now a vocal supporter of — and advisor to — Cream.

Cream was one of the first DeFi protocols to successfully go cross-chain by launching on Binance Smart Chain in September. The Binance deployment of Cream featured a different set of assets, mainly focused on large-cap assets like ETH, BTC, and BNB. Cream has experienced meteoric growth since launch. Within a month, the protocol had achieved $100M TVL on Ethereum. Today, its TVL stands at $200M, down from a peak of over $300M.

Cream highlighted the brighter side of DeFi forks, showing that they can be value-additive to the original protocol and not driven purely by greed or competition. The Cream developers and token holders drove this point home when they decided to burn 67.5% of the total CREAM supply, because they believed the burn would improve the protocol's future prospects.

12 | Total Value Locked (USD) in Cream Finance, data from DeFi Pulse



Conclusion

At the end of last quarter, we made two predictions about DeFi evolution in the short to medium term. We emphasized the importance of education and UX in DeFi. As this past quarter has proven, the pace of evolution can be so fast that even knowledgeable insiders can bump up against a steep learning curve, let alone people who may be entirely new to DeFi or even Ethereum. This quarter, we've seen emerging emphasis on UX and education.

In regards to UX, yearn.finance in particular launched with a clear focus on user experience. The result has been an entryway to yield farming that has considerably reduced the barriers to entry that existed before its launch. Moreover, Yearn proved it was quick to respond to community-oriented UX requests, adding a "dashboard" feature after users online asked for an easier way to track their portfolio's overall performance. Projects like Zapper.fi are providing the feel of a modern brokerage account and making it easier for users to keep track of asset allocation with a simple dashboard, and also start investing in different DeFi AMMs and yield farming opportunities.

In regards to education, breakout stars like DeFi Dad have proven there exists an immense appetite for approachable DeFi education that assumes some but not complete knowledge about the DeFi primitives that uphold the rest of the ecosystem. Similarly, Camila Russo's daily newsletter and news source, The Defiant, has shown just how quickly new projects and features are released, and evenly educates the growing community about the risks and opportunities. Detailed research and explainer articles from the likes of The Block, CoinDesk, and Cointelegraph are helping draw attention to larger numbers of cryptocurrency traders and people interested in the cutting edge of finance. So, looking ahead to Q4 2020 and beyond, what could we say about Ethereum DeFi?

ETH2, LOCKED FUNDS, AND ETHEREUM DEFI

It is very likely that Ethereum 2.0 (Eth2) will launch its genesis block in Q4 2020. The first phase of Eth2, called Phase 0, is the launch of the Beacon Chain, or more figuratively, the central control tower keeping track of the 32 shards on Ethereum 2.0. Phase 0 will also roll out one of the most fundamental and long-anticipated elements of Eth2: the Proof of Stake consensus mechanism and the ability to earn rewards through staking ETH on the network.

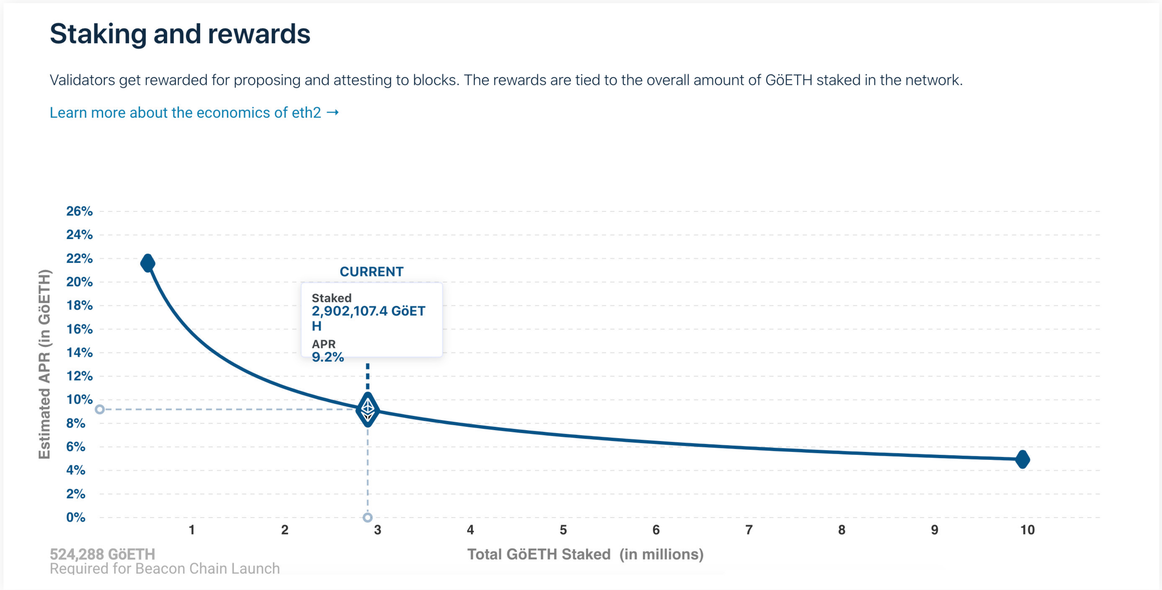
Proof of Stake will provide the opportunity for ETH holders to earn rewards from their allocated ETH by acting as either an active or passive validator. To earn rewards, validators will need to lock up their ETH in the Eth2 deposit contract. The precise percentage yield of ETH earned by validators is not a fixed number; rather, it is dependent on the number of validators and the amount of staked ETH.

In Q3, however, some community members expressed concern that DeFi could be the number one threat to getting a significant amount of staking participation

in Eth2. The logic is that Ethereum 2.0 needs ETH holders to lock up their funds in a deposit contract for a variable return and more disconcertingly, a currently-unspecified amount of time. If various DeFi protocols offer higher returns than Eth2 staking, ETH holders may elect to direct their ETH elsewhere, thus leaving Eth2 without the threshold of staked ETH required to render it sufficiently secure and decentralized. It is not unreasonable to worry that ETH holders would (at best) wait to see how early staking returns compare to DeFi returns, or (at worst) decide altogether not to “risk” locking up ETH until Phase 1.5 (which is likely at least a year away) in case another similar bull run occurs in the meantime.

But just as the Q3 DeFi ushered in the concept of a derivative token that represents a user’s pooled tokens, we anticipate that providers could offer liquid tokens that represent the value of their staked ETH. Only time will tell what choice ETH holders will make and what will drive their decision-making process in deciding whether to stake or not. Despite the programmable rationality of Ethereum, humans are not driven to decision-making by the bounds of a smart contract, and considerations like the amount of liquidity an ETH holder can access, the volatility of Eth1.x vs Eth2, and the evolving user experience of being an ETH holder are all factors playing into the decision of whether to lock funds in a deposit contract.

13 | Staking and Rewards Graph

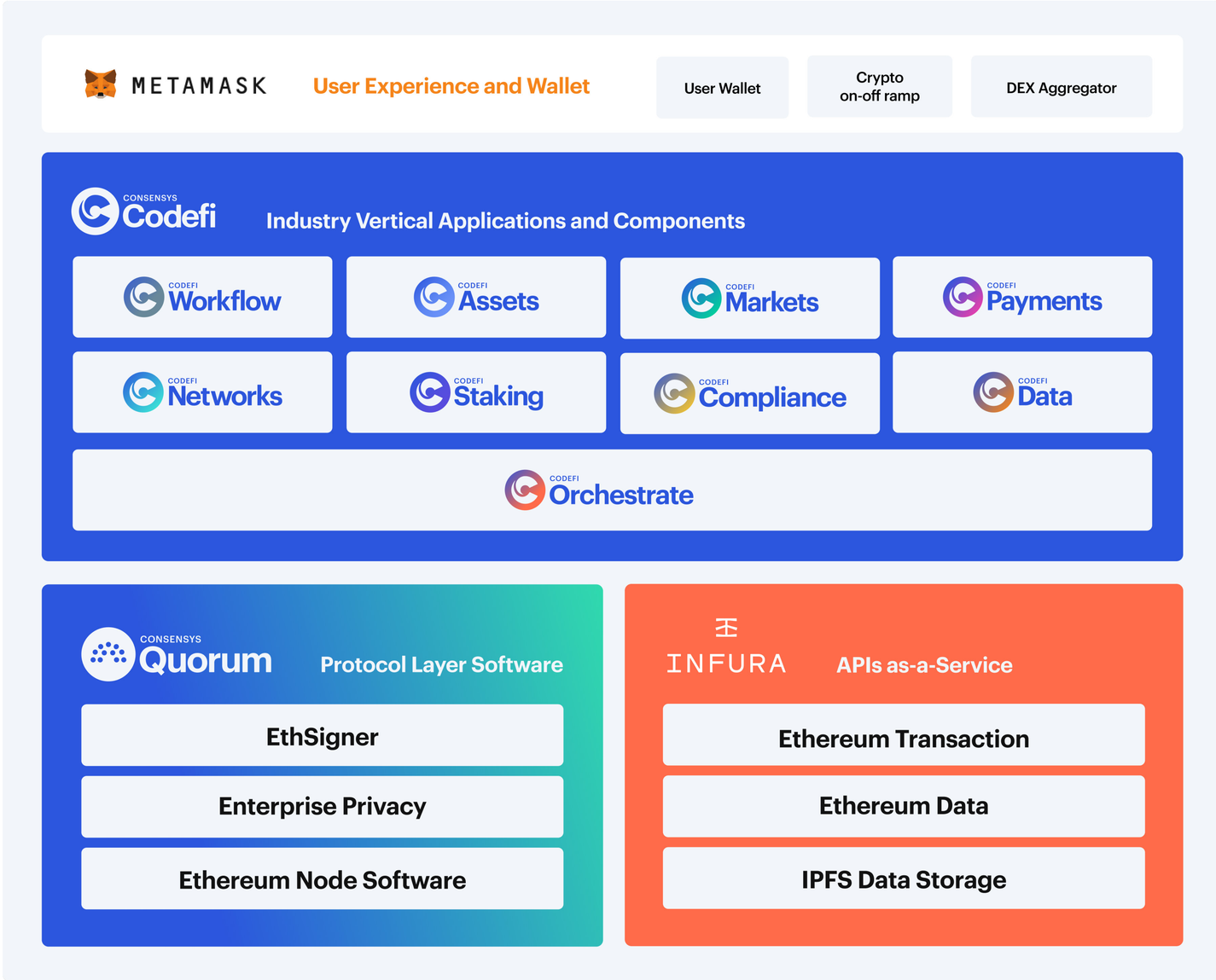


[Source: Eth2 Launchpad for Medalla Testnet]

Appendix

THE CONSENSYS PRODUCT STACK

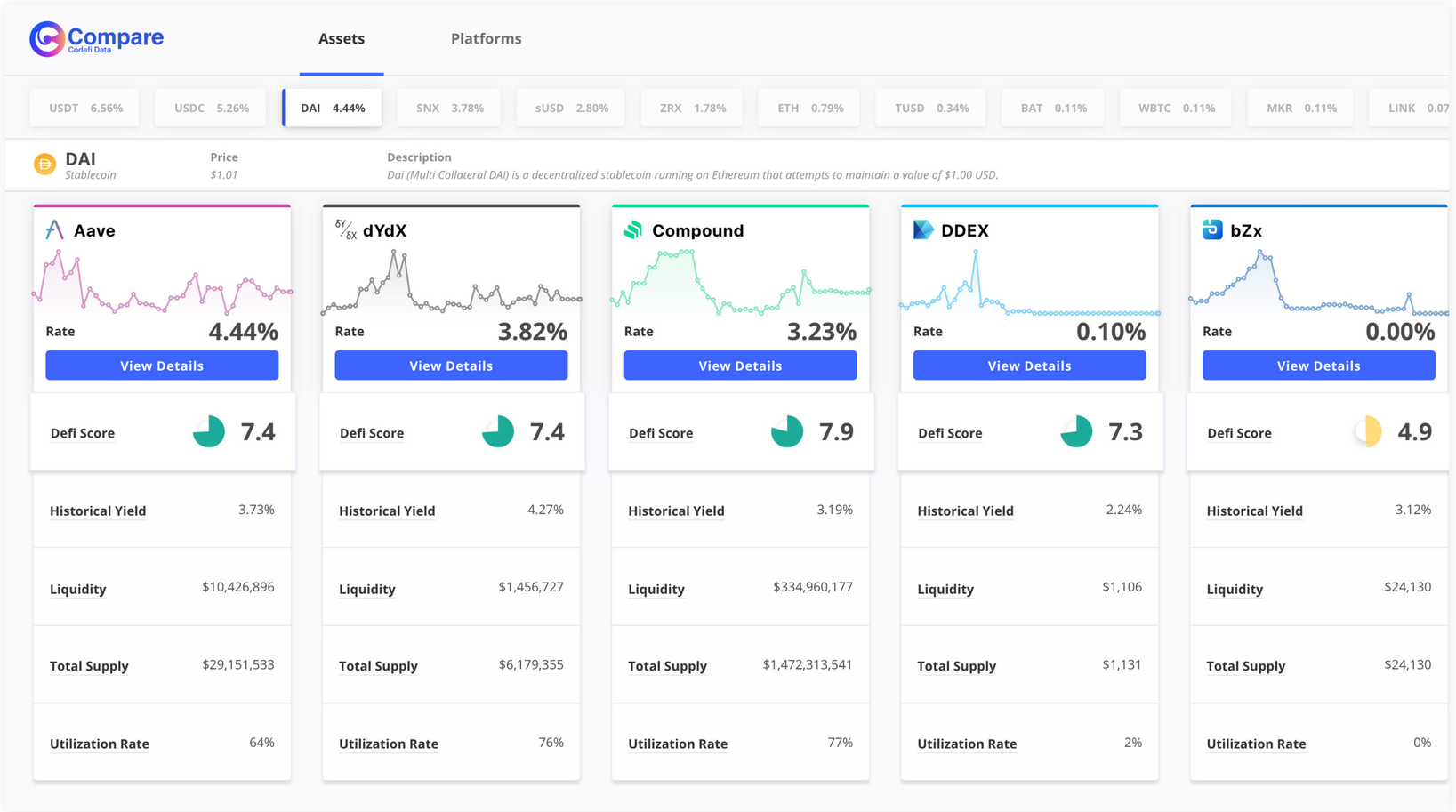
ConsenSys is the leading Ethereum software company. We enable developers, enterprises, and people worldwide to build next-generation applications, launch modern financial infrastructure, and access the decentralized web. Our product suite, composed of Infura, Quorum, Codefi, MetaMask, and Diligence, serves millions of users, supports billions of blockchain-based queries for our clients, and has handled billions of dollars in digital assets. Ethereum is the largest programmable blockchain in the world, leading in business adoption, developer community, and DeFi activity. On this trusted, open source foundation, we are building the digital economy of tomorrow. To explore our products and solutions, visit consensys.net.



DEFI SCORE

Analyze risk and assess performance on DeFi protocols with DeFi Score.

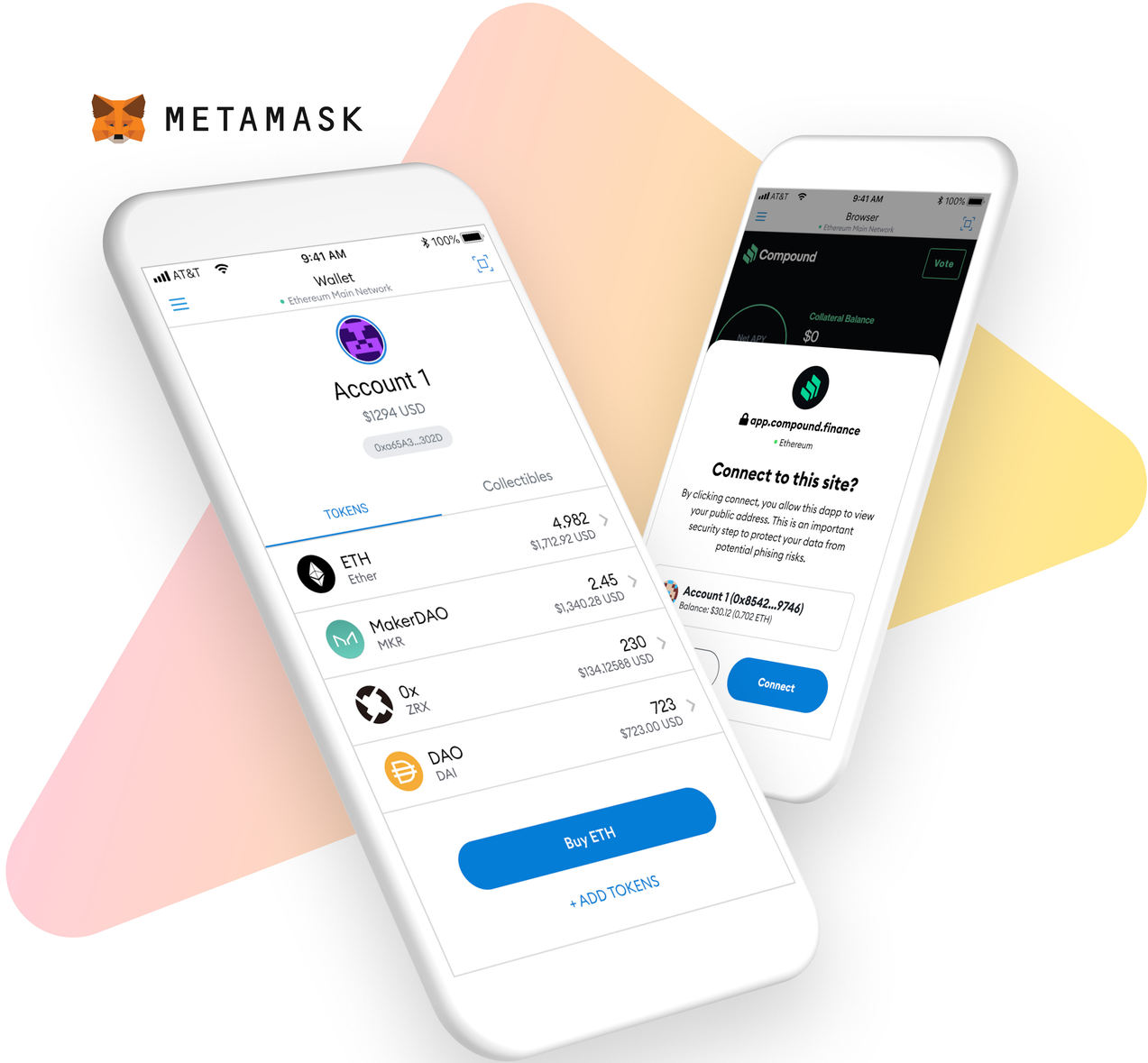
DeFi Score allows users to assess platform risk by measuring smart contract security, centralization, collateralization, and liquidity.



METAMASK

Engage with DeFi protocols through MetaMask.

MetaMask provides an essential utility for blockchain newcomers, token traders, crypto gamers, and developers. Over a million downloads and counting!



CONSENSYS DILIGENCE

Ensure smart contract security on DeFi protocols with audits from ConsenSys Diligence.

ConsenSys Diligence uses industry-leading blockchain security analysis tools, combined with hands-on review from veteran smart contract auditors to ensure smart contract security.