Q3 2020 DEFI REVIEW

DeFi Reaches Peak Exuberance Before Coming Back Down to Earth

A MESSARI REPORT

Q3 2020 DEFI REVIEW
AUTHOR: JACK PURDY

It was the best of times, it was the worst of times for DeFi in Q3 2020.

Fueled by tailwinds from the second quarter, liquidity mining drove both DeFi usage and token prices to all-time highs in Q3 as the space was flooded with increased capital and attention. DEXs that were trading in the single-digit millions at the start of the year surpassed $1 billion in a single day, exceeding that of centralized giants. Projects that were spun up in a matter of days were locking up nine-figures worth of value as mercenary capital freely flowed to the next highest yielding farm. It was pure chaos.

People were making money hand over fist riding out the farming trend and speculating on governance tokens. But all good things must come to an end. In the last month, DeFi has seen a nasty correction with most tokens down **over 50%** from recent high, helping to quell the irrational exuberance. While sentiment has taken a quick 180 and it may seem like the sky is falling, the space as a whole (as **defined** by our methodology) is still up on the quarter.

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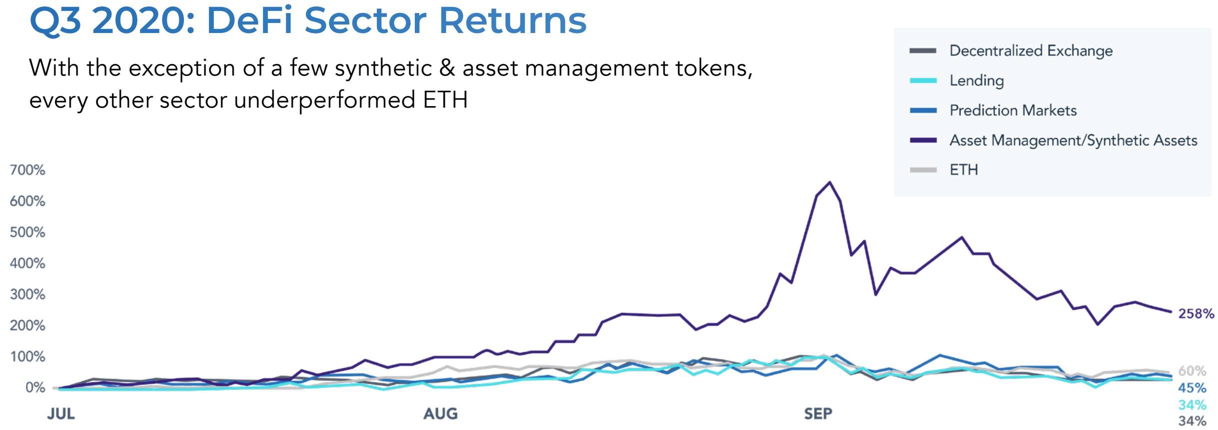
Q3 2020: DeFi Sector Returns

With the exception of a few synthetic & asset management tokens, every other sector underperformed ETH



Decentralized Exchange	
0x ($ZRX)	21.8%
Kyber ($KNC)	-17.9%
Loopring ($LRC)	197.4%
Bancor ($BNT)	-4.2%
Balancer ($BAL)	57.4%
Total:	**33.9%**

Lending	
Maker ($MKR)	14.9%
Compound ($COMP)	-38.4%
Aave ($LEND)	197.4%
Kava ($KAVA)	-4.2%
Total:	**33.6%**

Prediction Markets	
Augur ($REP)	-11.5%
Gnosis ($GNO)	101.2%
Total:	**44.8%**

Asset Management/Synthetic Assets	
Synthentix ($SNX)	154.4%
UMA ($UMA)	391.8%
Melon ($MLN)	118.0%
Total:	**257.6%**

As of Sep 30, 2020 • Source: Messari • Assets selected based on 5 largest tokens in the sector with a minimum market cap of $10m and real-volume of $100k
Sectors weighted based on market-capitalization on July 1 with any one asset assigned a maximum weight of 50%

Although, this doesn't give a complete picture of price performance as the universe of DeFi assets has greatly expanded since the start of the quarter. Several of the most used platforms launched tokens and with them came fast-follower forks that sought to improve upon their perceived shortcomings. However, with the exception of YFI's outsized returns and UNI's moderate performance since launch, most of these tokens have steadily bled as they've been farmed and dumped.

	YFI	CREAM	CRV	SUSHI	SWRV	UNI
Launch Date	JUL 17	AUG 04	AUG 14	AUG 27	SEP 05	SEP 16
Returns	2911%	-29%	-94%	-49%	-93%	43%

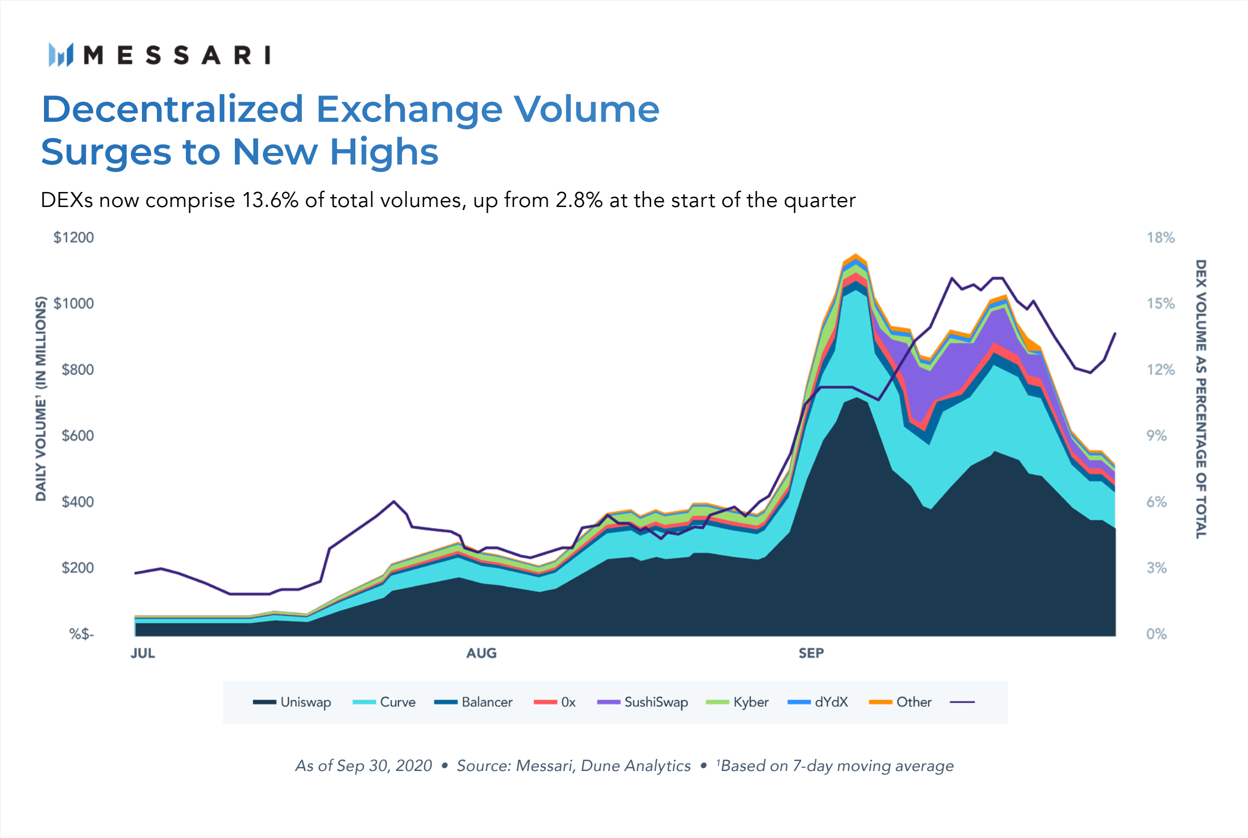
Source: Messari, project websites

Sector Review

Decentralized Exchanges (DEXs)

Although prices weren't reflective of it, DEXs were the undisputed winners of Q3, fundamentally benefitting from the heightened speculation around DeFi. The increased volatility coupled with farmers scrambling to rotate crops led to a proliferation in on-chain trading. More often than not the assets being traded for were put to productive uses in either AMM or lending pools, so it made more sense to use a DEX rather than a centralized exchange which adds a layer of friction needing to deposit and withdraw from in order to then interact with DeFi. In addition, most of these governance tokens were first made available on DEXs, and even when they were eventually listed on centralized exchanges, most of the liquidity sat on DEXs.

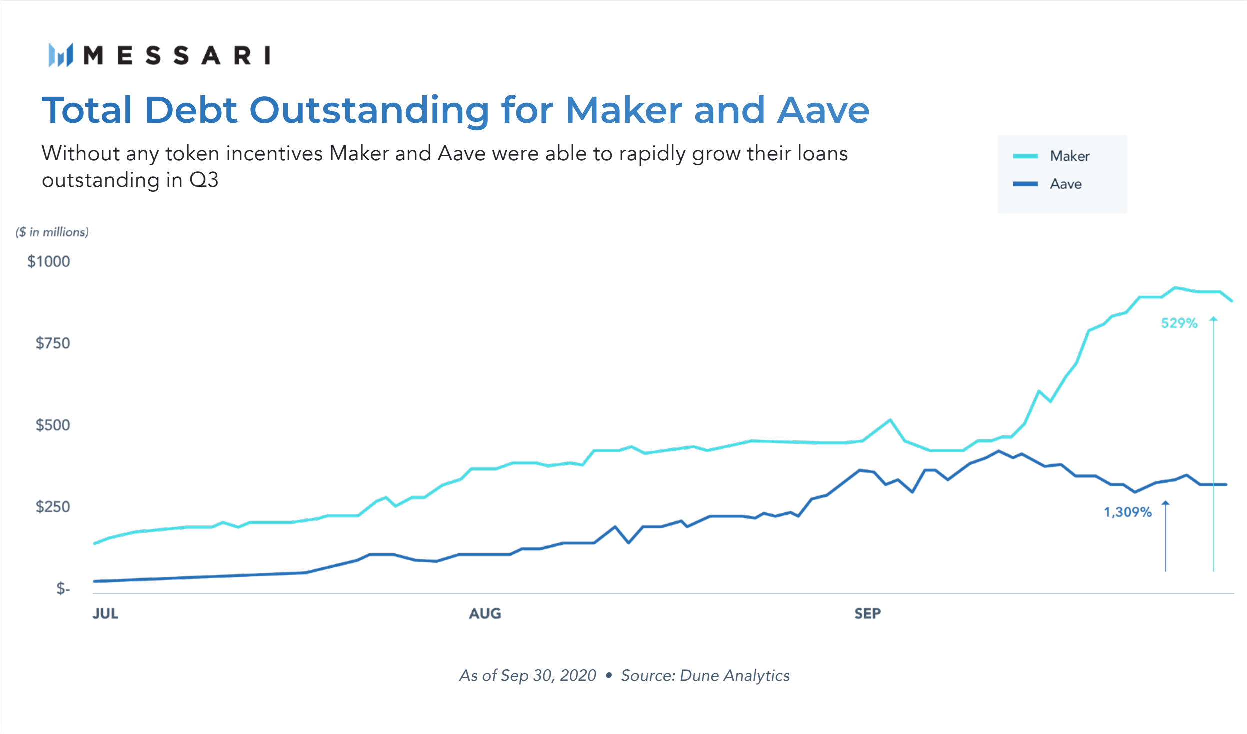
This trend began in Q2 when average daily volumes increased 500% to $80 million. That figure is nothing more than a blip as it has now exceeded the expectations of even the **biggest DeFi bulls**, temporarily surpassing $1 billion per day. By the end of the quarter, DEXs comprised 13.6% of volume across all exchanges, up from 2.8% at the beginning of it. Volumes have since declined from September highs but remain 10x what they were at the beginning of Q3.



Almost all of this growth has been driven by **automated market makers (AMMs)** like Uniswap that account for more than 90% of all DEX volume, up from 60% at the start of the quarter and 20% at the beginning of the year. This is largely a result of the ease in which tokens can bootstrap liquidity by incentivizing market-making from passive token holders rather than requiring the services of professional market makers to diligently manage an order book. Their permissionless nature also enables assets to be listed immediately rather than having to go through any diligence process (for better or worse). Lastly, AMMs have also proven to be superior to their centralized counterparts in some respects, particularly around the trading of pegged assets such as the various flavors of stablecoins or wrapped bitcoin.

Lending

In Q2, the total amount of loans outstanding increased dramatically although it was almost entirely on Compound as a result of COMP mining. This growth continued in Q3 but it occurred on protocols that don't offer token-based incentives. While Compound stagnated, loans outstanding on Maker grew from $140 million to $850 million while Aave increased theirs from $20 million to $250 million.



Even though Maker and Aave don't offer direct liquidity mining, much of their growth was attributable to other yield farming protocols. For example, yEarn's ETH vault enabled ETH holders to earn yields on their idle ETH by automatically taking out a Dai loan and using that to farm CRV. Farms such as Curve's that involved users depositing Dai served to increase the demand and thus price of Dai. Opportunistic traders could then take advantage of elevated prices along with Maker Governance's attempts to lower them by **taking out loans** with USDC collateral. With a collateralization ratio of 101%, if the **price of Dai** was $1.03 you could deposit 101 USDC to mint 100 Dai to then sell for 103 USDC. This type of arbitrage has been a leading cause of Maker loan growth, evidenced by **USDC accounting for 25%** of all collateral in Maker.

While Aave's LEND token was the clear beneficiary of its loan growth, MKR has **not performed as well** compared to other large-cap DeFi tokens. This is because the stubbornly high Dai price has kept interest rates on ETH vaults near 0% for much of the year which means little value flows to MKR holders. However, as more Dai is created from different collateral types and interest rates rise, the protocol is starting to **generate substantial earnings**. Over time, the market should begin pricing these assets closer to realized earnings.

Prediction Markets

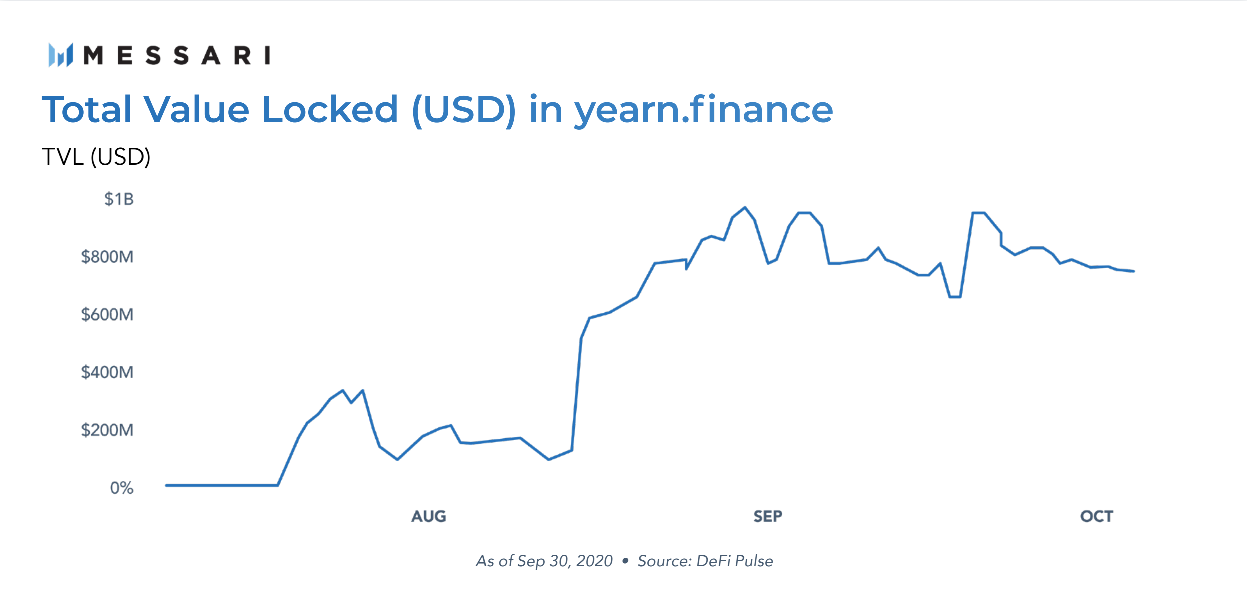
Augur launched its **long-awaited v2** upgrade that brought about a number of promising upgrades to improve the user experience and deepen liquidity. After an initial run-up around the launch, REP was still down on the quarter as material usage failed to unfold despite the return of professional sports and a contentious U.S. election. Currently, the largest market is around the election but **open interest remains relatively small** at around $100k. It's also worth noting two other platforms launched this summer, Omen (built on Gnosis) and Polymarket which have comparable usage.

Asset Management

As the investable universe of DeFi continues to expand, the sophistication and time commitment necessary to manage a portfolio increases exponentially. There are also a number of trading and yield generating strategies unique to DeFi that thanks to the inherent composability can be accessed by anyone. Since most users don't have the wherewithal to stay on top of these, but may still want to participate, an opportunity exists for both active and passive asset management solutions.

At the start of the quarter, there were really only two asset management protocols - Melon and Set Protocol. Set's assets under management began and ended the quarter around $15 million. Melon, which unlike Set has a token, stood to benefit from investors buying into the narrative behind on-chain asset management. While Melon's usage hasn't materially increased mostly due to the limited scope of the v1 platform, a major v2 upgrade is expected in the next few months to expand the investable assets and more importantly enable the integration of other protocols to allow lending, yield farming, and more. In addition, the **token economics are in the process of changing** to better align MLN price with growth of the platform.

By far, the biggest story was the loud entrance of yearn.finance whose YFI token catapulted it to the forefront of DeFi. While its yield farming brought it into the spotlight, even after YFI distribution stopped both capital and attention remained on the work of Andre Cronje and the burgeoning community that developed around the project that now holds $750 million.



What began as a simple tool to optimize lending yields transformed into an **industrial scale yield farming protocol** that provides tools to efficiently farm on popular protocols. This alone has made yearn one of the largest Defi projects by TVL. But that's just the tip of the iceberg. Yearn is well on its way to becoming a multi-faceted protocol providing an array of diverse yield strategies, as well as insurance, **exchange, and lending** products, with more to come.

While the sector has historically had very few projects it is becoming increasingly competitive with new entrants such as dHEDGE, APY.Finance, PieDAO, and Index Cooperative working to satisfy the need for asset management. Going forward, watching how capital flows into these projects will provide critical insight into investor behavior and the future of DeFi investing.

Synthetics

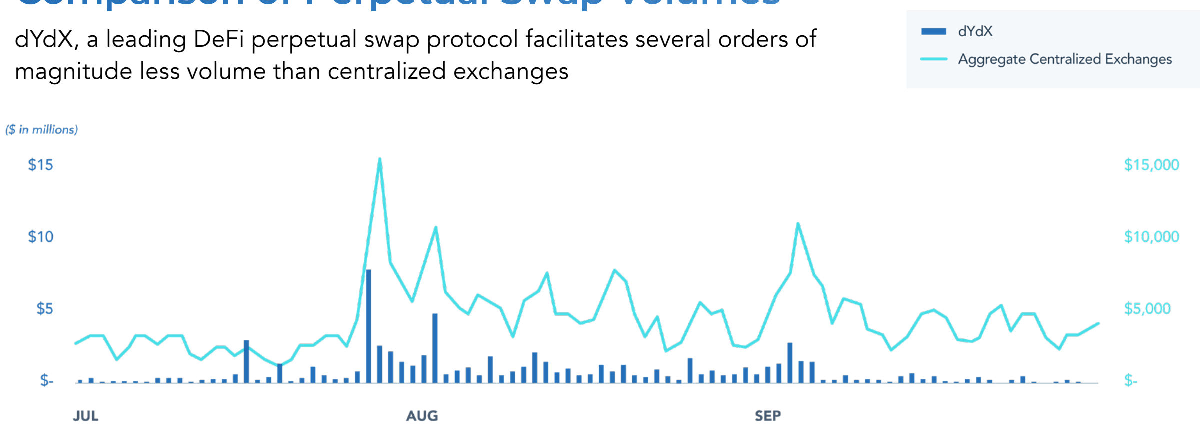
In the first wave of decentralized financial applications, we saw the basic building blocks come into existence and work their way towards material usage. These plain vanilla lending and exchange products provide the necessary infrastructure to build the rest of DeFi. As users become more comfortable with these primitives, it's only natural that more complex products will follow to better serve investors' needs. Derivatives allow more effective hedging of risk as well as more tailored speculative return profiles which is why in traditional financial markets derivatives **greatly outweigh** the size of global debt and equity markets.

In crypto, we're starting to see a similar dynamic play out. Bitcoin futures now regularly trade as much as the entire spot crypto market. And Bitcoin options, while nascent, are starting to become more prevalent.

In DeFi, the derivative market is even less developed. While a few products such as dYdX BTC perpetuals and Opyn's options contracts are live, they haven't started competing with likes of BitMex or Derebit.

Comparison of Perpetual Swap Volumes

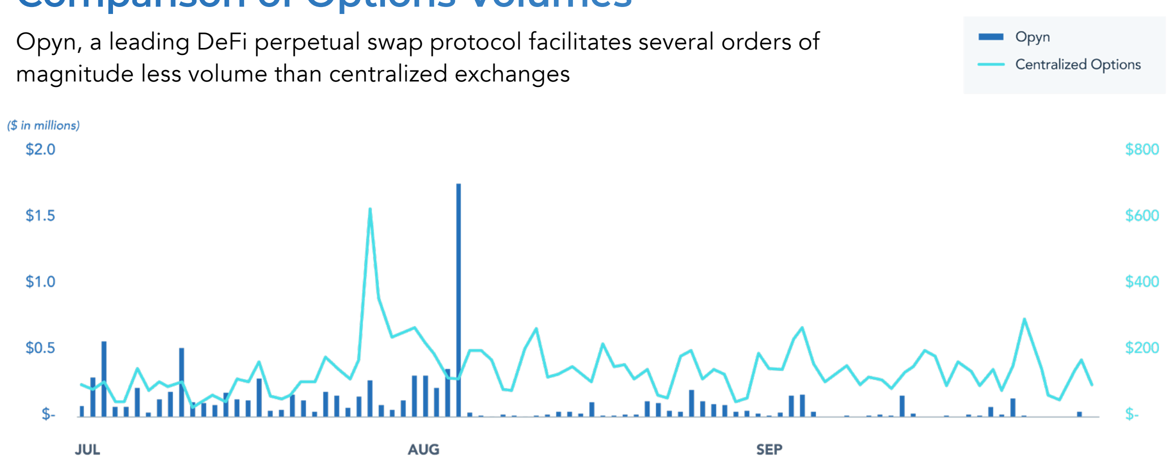
dYdX, a leading DeFi perpetual swap protocol facilitates several orders of magnitude less volume than centralized exchanges



As of Sep 30, 2020 • Source: Glassnode, Dune Analytics

Comparison of Options Volumes

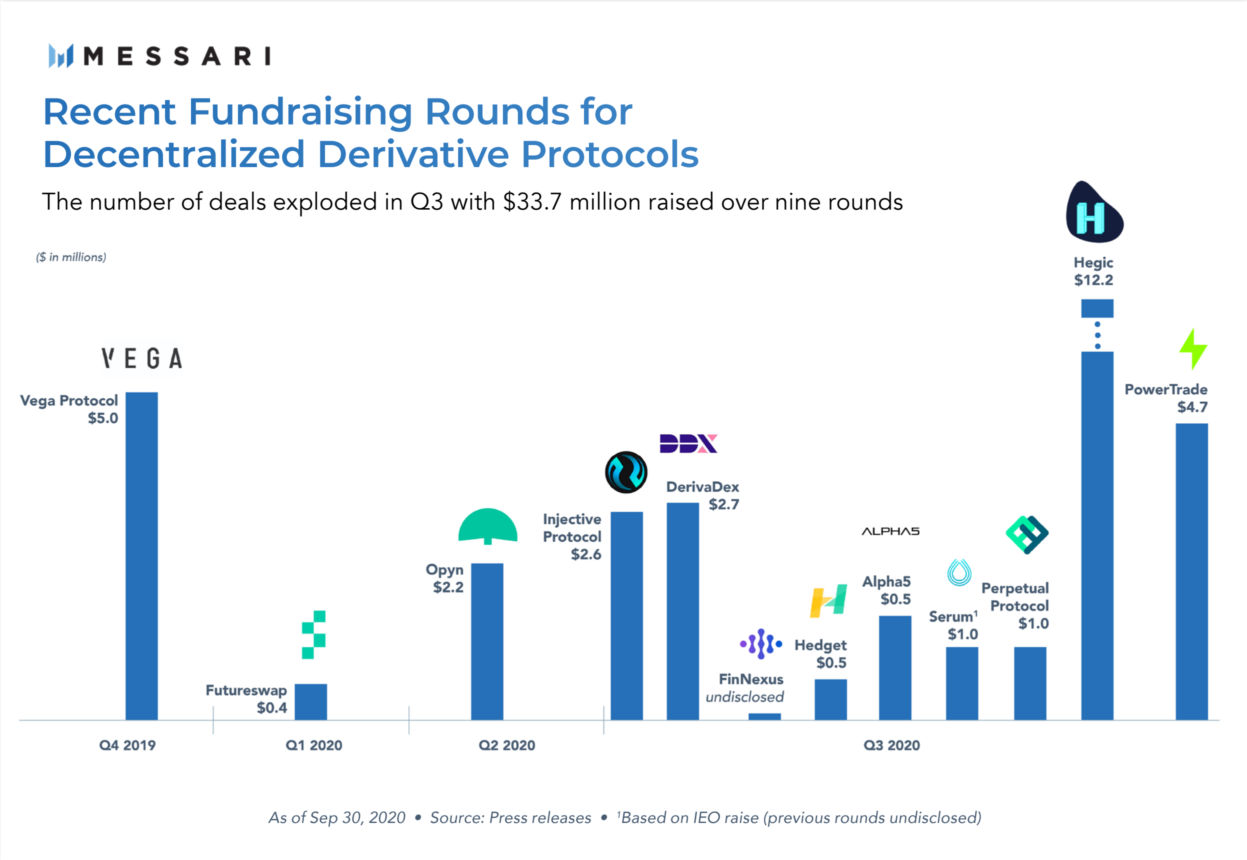
Opyn, a leading DeFi perpetual swap protocol facilitates several orders of magnitude less volume than centralized exchanges



As of Sep 30, 2020 • Source: Skew, Dune Analytics

While these nascent protocols are far from doing so, it would be shortsighted to dismiss the possibility altogether. It wasn't all too long ago that the thought of Uniswap facilitating anywhere near the volume of Coinbase seemed ludicrous. But here we are, watching the David vs Goliath story play out in real time.

The notion that decentralized derivatives could play out similarly to DEXs isn't just a thought-provoking idea. Many of the top funds in the space are actively betting on it happening. In Q3 alone, there were nine fundraises totaling $26 million for projects looking to actively compete for a slice of the growing derivatives pie.



This is by no means a winner take all market either. There are an abundance of diverse products to be created leaving an opportunity for several projects to create immense value as they explore different design choices with varying tradeoffs. Not only are there plenty of futures, options and swaps that replicate existing financial products, but there is an open design space of **new financial instruments** that can be uniquely constructed by these composable protocols. The total addressable market for existing crypto derivatives is already in the trillions per year, but as crypto continues to grow and once this new realm of crypto-native financial instruments are fully explored, it could quickly become multiples higher.

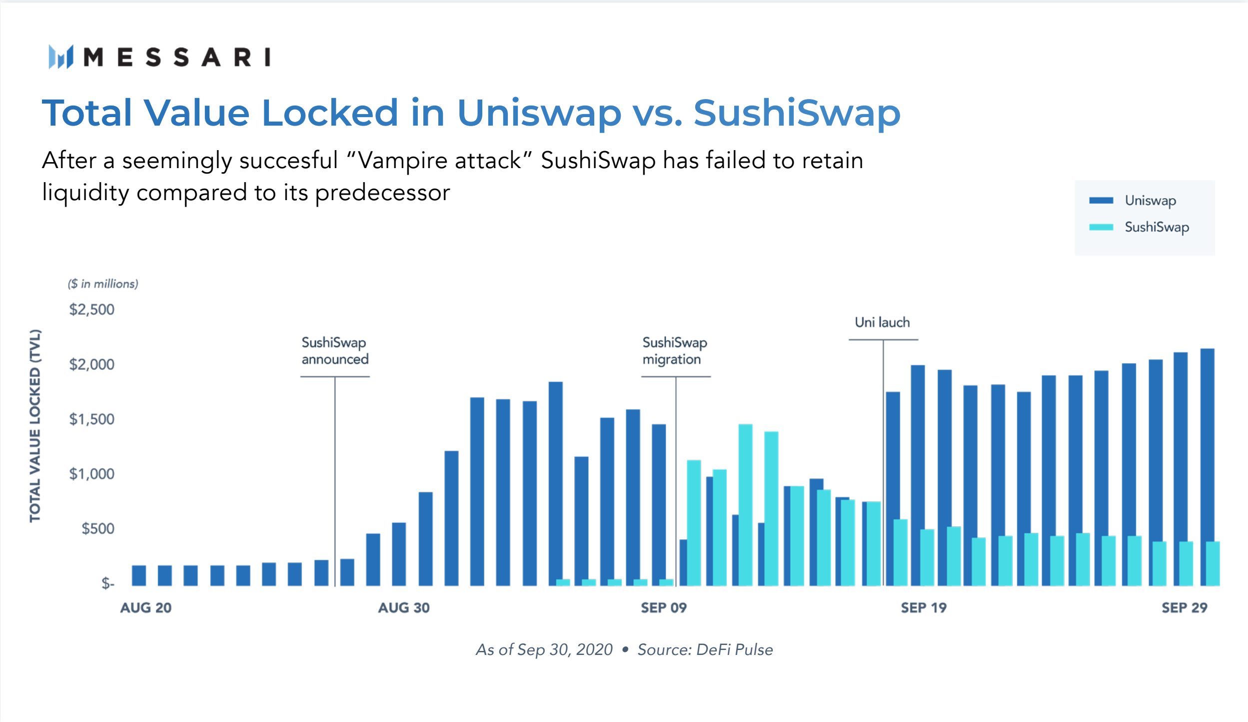
Broader Trends

Fast Follower Forks

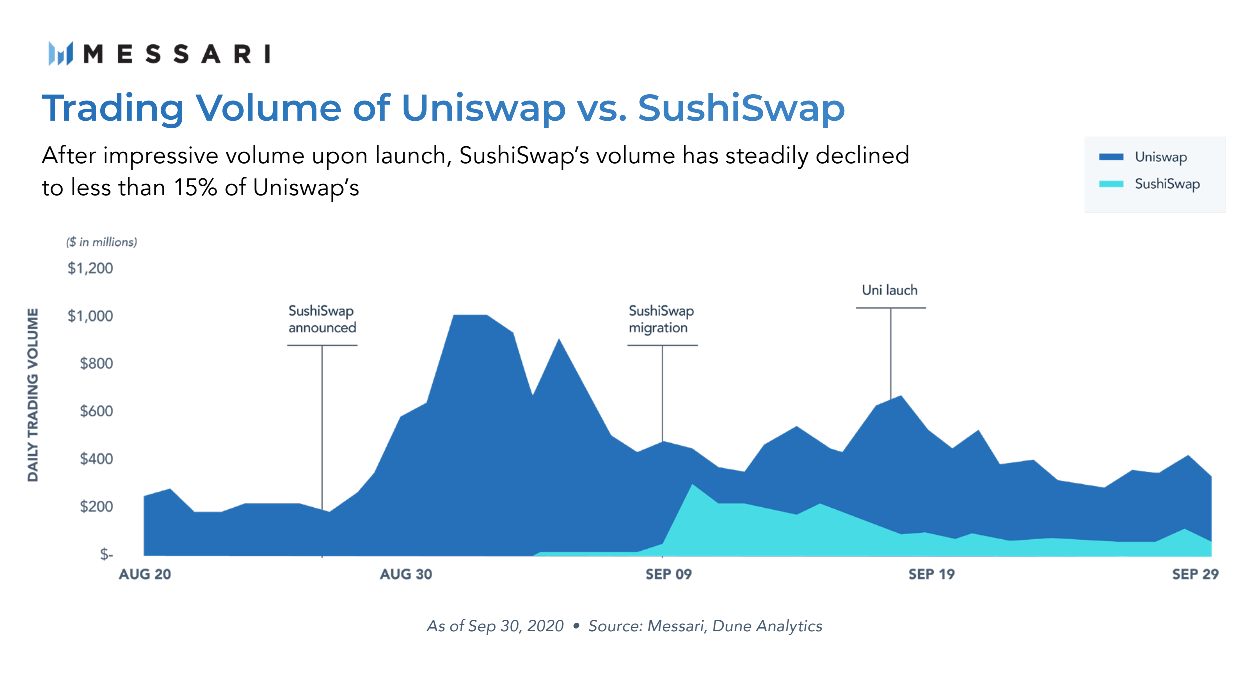
The open-source nature of blockchains has created a uniquely hyper-competitive environment. At any time a competitor can copy your code, tweak it to improve upon perceived shortcomings, slap a new logo (insert favorite food) and attempt to steal all of your customers. This trend, what's referred to as "**fast follower forks**", overran the consciousness of every crypto project building in this space as it challenged many of the beliefs around their sustainability.

One of the most notable forks felt like a long time coming.

Uniswap, the golden child of DeFi, already established itself as the dominant player in the DEX world. However, many believed it was not living up to its full potential since it wasn't juicing incentives to provide liquidity by distributing a token. Further, its VC-backed nature felt dirty **to some** in comparison to a fully community-owned project like YFI. **Enter SushiSwap.**



After the project was announced, liquidity poured into Uniswap as $SUSHI tokens would be distributed to LPs. After a few weeks, the liquidity would then auto transfer to SushiSwap's separate pools. At first, it seemed successful as SushiSwap was able to drain the majority of funds from Uniswap. This means they were able to provide better trade execution with less slippage. All else equal, this should have attracted more traders.

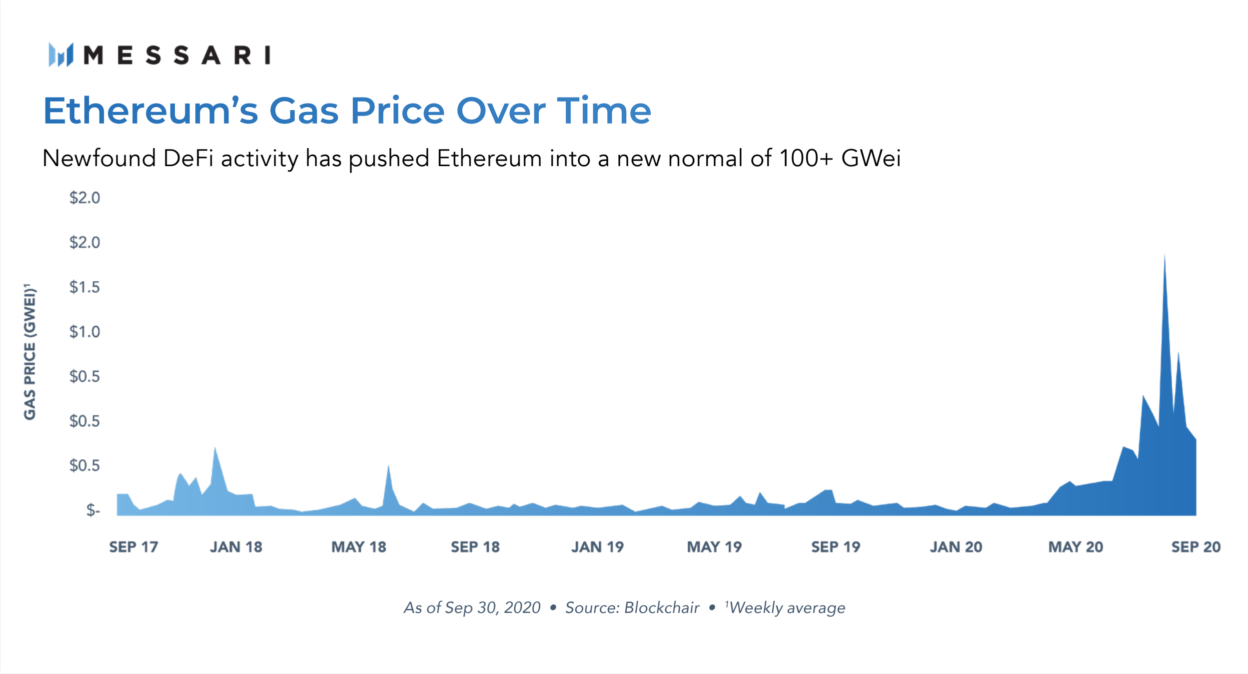


But thankfully for Uniswap, all else is not equal. While SushiSwap saw a spike in volume after the migration, it has declined ever since and now only accounts for 13% of Uniswap's. As it turns out there are a number of **other factors to be considered** such as faith in the team, existing community, and integrations. The drop in TVL and volume was only exacerbated once Uniswap announced their immaculate airdrop to the DeFi world, eliminating the initial core value prop of SushiSwap.

Around this time there were dozens of similar forks and then forks of forks. Most have faded into irrelevance although their legacy remains. The mere threat of a fork can serve to hold projects accountable to remain minimally extractive. If a project becomes too self-serving, then a fast follower fork can come in to provide more value to the existing user base. This is a net positive for consumers as it ensures they are not being taken advantage of. For projects, it gives them something to keep top of mind as fork defense strategies will be crucial to ensure long term sustainability.

High Gas Fee Environment

For the better part of the last three years, gas fees on Ethereum have hovered around 10 GWei meaning anything from simple transactions to the most complex contract calls have been affordable to all users. With the recent DeFi boom, the network has reached unprecedented levels of congestion that make the **CryptoKitty days** look desirable.

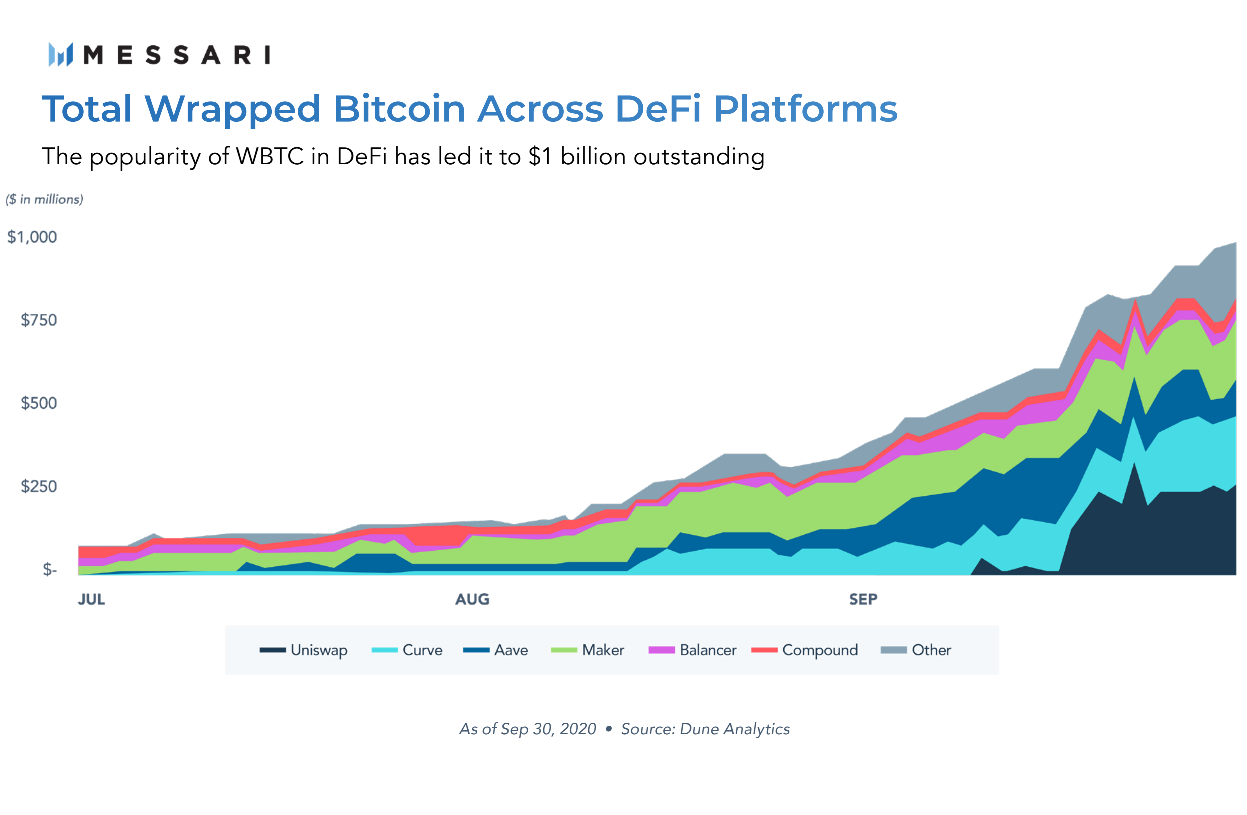


Gas prices have remained elevated because the number of profitable on-chain opportunities has never been higher. If you're making thousands of dollars every day from yield farming or actively trading a highly volatile market then who cares about a couple hundred dollars in gas fees? The problem is, not everyone has enough money to start in order to generate this kind of profit so average retail users have been priced out entirely.

For anyone with less than a few thousand dollars, these gas prices are completely untenable since moving funds around and interacting with smart contracts will eat away at large portions of your capital. One solution to this problem has been pooled investment models that share gas costs across all investors. Something like Set's auto-rebalancing funds or yearn's Vaults enable you to invest in these profitable on-chain opportunities without having to front the gas costs yourselves. Should gas costs remain well-above their historical averages, then one could expect a proliferation of services like this geared towards the longer tail of retail users.

BTC on ETH

As we noted in our Q2'20 report, the number of bitcoin migrating onto Ethereum picked up dramatically. This trend accelerated exponentially in Q3 as the figure sits at nearly $1.5 billion. This has primarily been driven from wrapped bitcoin (WBTC) which is being used across all major DeFi protocols.



By porting bitcoin on to a more expressive base layer, users are able to generate new sources of passive income whether through loan interest, AMM trading fees, or yield farming. Currently, this requires trusting different entities in charge of custodying the bitcoin and issuing it an ERC-20 against it. But as Ren opens up its validator set and Keep's tBTC gets off the ground, there will be more trustless versions available for users uncomfortable trusting a single custodian.

Nursing the Hangover

As the **DeFi summer** came to a close, the industry is left with much to reflect on. Looking back on the last three months, some may see this as just another hype cycle. Early technology that gives reason for excitement but got ahead of itself and in a publicly traded market fell victim to the emotions of irrational investors. They'll say it was all ponzinomics, cleverly crafted designs made to reflexively pump the price and attract uninformed retail investors under the allure of unsustainable yields.

And they wouldn't be entirely wrong.

But dismissing it altogether would be a shortsighted, erroneous mistake. For all the bullshit food crops that came and went, there were an equal number of innovative experiments we got to see play out in real time. Experiments that could fundamentally alter how early stage networks are bootstrapped, how users are rewarded for their time and money, and most importantly, how our financial system could look one day if it were built on open, permissionless, censorship-free infrastructure that prioritizes inclusion, transparency, and fairness.

About Messari

Messari is the industry's leading market intelligence company focused on the digital asset ecosystem. Our **tools** and **research** solutions provide customers with actionable insights to confidently make decisions in the fast-moving cryptoasset space. Since our inception in 2017, we've built strong relationships with the industry's top thinkers, investors, and builders from today's most promising projects. Learn more at **messari.io**.

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