

In this series I propose we are a year into 5 year long DeFi hype cycle, likely made up of several mini-cycles, where the aggregate effect is a quadrupling of today's combined market cap and a doubling of the 2017

\*\*S600\*\*D\*\*n highs based on a sustained 'mainstreaming' of the industry. In fact, it's not impossible we hit that in the next 24 months alone should a few things fall into place. So now I've got your attention let me explain how across 3 posts.

The Broken DeFi Hype Cycle

Retail DeFi: DeFi + NFTs

Institutional DeFi: Al Lego, STOs & dPrime

## The power of DeFi



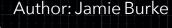
## Simply put, DeFi is an extension of Andreessen's 'software eating the world'.

In this case, the 'digitisation' and 'decentralisation' of commerce: both in a capital markets context & commerce of all types, including its subsets like ecommerce.

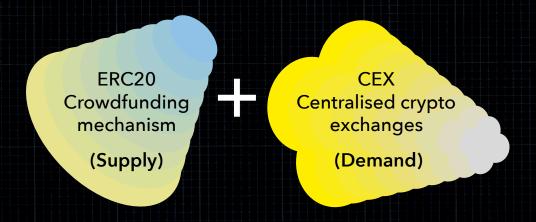
The last decade 2010 to 2020 has created a software layer for the internet capable of creating (minting), storing, moving around, lending & borrowing, digitally scarce, programmable value with minimal intermediation. Centralised exchanges and wallets (aka CeFi) being the minimal mediation layer which improves accessibility and abstracts technically complex administration and custody, but most importantly acts as a gateway (for distribution) for new demand to enter the system.

Unlike the current financial system; DeFi is a bottom up, open source, permissionless, environment based on 'hyper competition' which seeks equilibrium between Yield vs Efficiency. At face value that might look like a paradox, and has been called 'The DeFi Paradox'. However, I propose this is only true if the ecosystem is not fundamentally growing: bringing in either more collateral (supply) but also more liquidity (demand) and closing the loop.





When both of those things happen it kicks starts a 'hype cycle' (proper) like we saw with ICOs in 2017. If we reflect back on that period it is well understood it was as a consequence of the combined innovation triggers of:



Now it's worth stating upfront people like to put CeFi like CEXs (the minimum mediation layer described above) at odds with DeFi. But in fact they are synergistic if we are to grow the capital and usage of the system: in that DeFi needs CeFi and CeFi needs DeFi and each should be considered one part of the same thing. The only distinction being CeFi is how DeFi interfaces with the existing financial system as it is and associated regulators. It's where most new demand enters from and where users happily pay a fee for a bundling of services and legal accountability should something go wrong. This last point is incredibly important to the majority of people.

#### Total value locked vs. ICO Investments



## Anatomy of a Hype Cycle vs a Broken Cycle

Firstly, it's worth stating many people assume 'hype cycles' are a net bad thing but historically they are when an open capital market forms around an innovation it tries to price, which in the end it always overvalues. Eventually resulting in a sharp correction, which in turn kills hype.

As an open permissionless capital market this seems to be an intrinsic part of innovation in crypto. It's how innovation in the space gets financed; albeit in a seemingly capital inefficient way, but it works, or at the least it's the best we've got.

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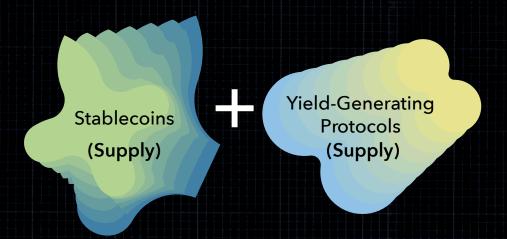
Source: Coindesk ICO Tracker DeFi Pulse

Often hype cycles are more generally, historically triggered by combinations of innovations as described above; some old, some new, but often put together in a new and timely way.

During the first half of this year everybody (including me) believed that there would be a major DeFi hype cycle and bull run in 2020 but it somehow stalled; what should be regarded as a 'broken cycle'. It took me a while to connect the dots but if you follow the logic laid out above in retrospect it's easy to see why and hypothesise what would be required for a DeFi hype cycle 'proper'.

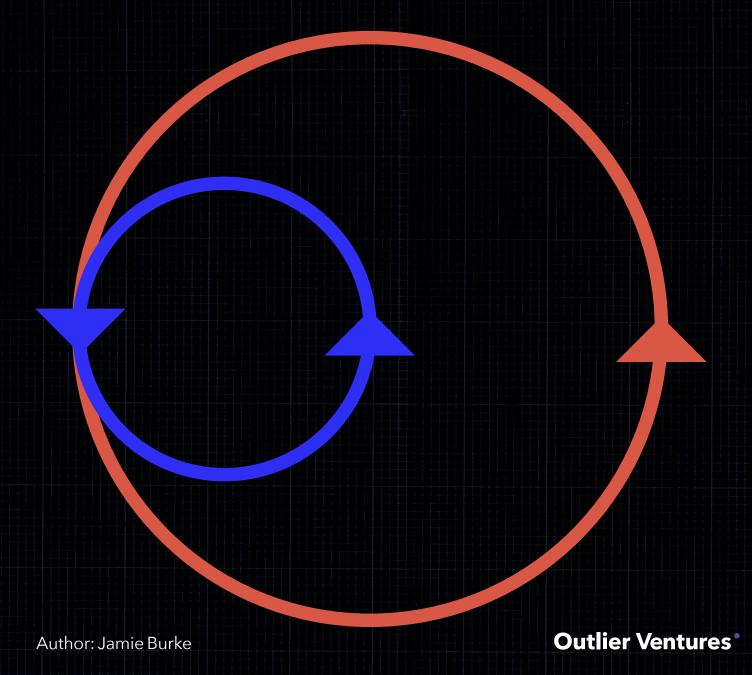
## So how did it start and why was it incomplete?

Innovations:



Innovations in yield-generating protocols that were 'farmed', such as lending, fees, liquidity mining triggered a short period of crazy gains for a small subset of crypto. However, only roughly less than 5% of tokens were staked and they were owned by an even smaller subset of the global crypto population for reasons we will unpack later. So in effect not only was it self-sustained within crypto itself, but by a very small subset of it.

In summary, it effectively created a new form of supply, without the new demand required to sustain it. And because it wasn't linked to any sustainable income of any sort instead it just created an artificial recycling of gains. Without any new liquidity entering the system this aggressive form of user acquisition (when thought of in a marketing context) turned out to be a protracted 'game of chicken' based on what was typically over leveraged trading positions based on assumptions about yield, that at a systematic level was ultimately unsustainable. Because most importantly it did not achieve the levels of hype to cross over into the mainstream and bring in new demand from new participants to trigger a wider and sustained bull run.



## What's required for a DeFi Hype Cycle Proper?

### What worked?

Whilst broken, or at least incomplete, the last cycle did reveal the power of a new supply side innovation – DeFi is essentially building a new financial system from the ground up. Decentralised automated market makers (AMMs) and liquidity pools provide an alternative to professional market makers, order books and clearing facilities. Flash loans offer unprecedented arbitrage and trading capabilities.

This means debt and leverage are traded freely, in a permissionless environment, putting capital to work in incredible ways. And on top of it all experiments in governance and new forms of coordination mechanisms for its participants, what you would unavoidably call, 'digital equity':

#### A digital right to Interest (Yield) + Governance\*

and demonstrated in this particular application; the ability to quickly bootstrap the liquidity of a network for borrowing and lending.

\*Now it is worth saying at this point if this sounds a lot like classic equity it's because it is. And its long-term success is dependent on its 'net market outcome', once regulators finally catch up (which if ICOs are anything to go on will be a 2-3 year window).

By 'net market outcome, r mean the degree to which its 'hyper competition' has become unavoidably successful in bringing about efficiency and competition for consumers vs any malpractice when compared to the current financial system. If it fails to properly mainstream and make a significant positive impact for the consumer, today's 'DeFi premium' will become a 'DeFi discount' as regulators begin to enforce action. At least to the extent they can. Leading to a clumsy cat and mouse game between regulators and the market which will both momentarily constrain the hype cycle and then amplify it when its unstoppable nature is reinforced: hence the prediction for a series of mini-cycles aggregating up.

Some will argue regulators will never allow digital equity to be sold or used by retail but the precedents of Bitcoin and Ethereum have shown innovations in this permissionless environment if properly designed and executed, with appropriate levels of censorship resistance and decentralisation, can eventually be acceptable or unstoppable by the time regulators catch up.

Because of its composability and open source nature DeFi protocols can easily be replaced or forked and increasingly its smarter founders are sufficiently distanced or removed from day to day governance. Some choosing (and sadly some abusing) anonymity.

When Programmable Privacy solutions such as The Secret Network begin to be layered on top of DeFi, both the community members who build and govern the protocol, but also the applications built on the protocol itself can choose the degree of anonymity they want allowing for greater participation, innovation and decentralization.

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Furthermore, well distributed governance rights bearing instruments ironically could make it harder for regulators to argue a network isn't sufficiently decentralised.

### Its limitations

But now if we go back to the reasons for DeFi 1.0's limitations: This series of supply side innovations when combined with stablecoins also arguably failed to cross over because of maturity and 'protocol fit' constraints:

#### **Ethereum Fees + Complexity (Tech + Risk\*)**

\*This last point is because of the complexity of the DeFi stack's composability, something well articulated here as 'Deep DeFi' by Key Tango's Dan Danay.

## What's missing DeFi + NFTs?

In the following series I will argue there are both several Supply and Demand Side (near to mid term) innovations coming to market that remove many of these technical or economic constraints (fully or partially) and when they do it promises to take the handbrake off in DeFi and allow a series of, likely mini, hype cycles that could well aggregate into a meta cycle and subsequently a major 12 to 18 month bull run.

Perhaps the most immediate being NFTs (Non Fungible Tokens) as mechanism to reward loyalty and discourage highly promiscuous and unsustainable yield hunting leading, with its race to the bottom economics and 'vampire attacks' (well documented here),

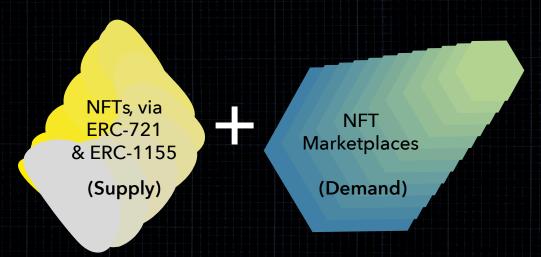
where DeFi protocols are aggressively forked, new short term incentives added and liquidity quickly lost.

Importantly these hype cycles, unlike the first broken one, should successfully bring in two new types of demand from distinct types of participants: broken down into two separate articles as Retail (2/3) & Institutional (3/3) and with them respective liquidity, each with their own prerequisites that first must be met.

#### Retail DeFi

Firstly, for the purpose of this series I would define 'Retail DeFi' as both existing consumers that already use crypto today (although primarily via CeFi) and for speculative purposes, as well as entirely new users who without the below innovations would have no interest in directly holding crypto as as asset class.

As discussed in the previous article (linked above) every hype cycle is usually a consequence of a combination of innovations coming together in a timely way. I propose the innovations that will drive demand for Retail DeFi are as follows:



'A non-fungible token (NFT), also known as a 'nifty', is a special type of cryptographic token which represents something unique; non-fungible tokens are thus not mutually interchangeable by their individual specification'

These two standards allow for all kinds of unique programmable digital goods of multiple token types and characteristics such as: social currencies, rewards, collectibles, access tokens, digital art, loyalty points, and digital to physical goods redemption. But actually most things in your life today are non-fungible including your friendships, house, car.

Only narrow use-cases like monet are fungible. So NFT use cases are as limitless as your life today. The question is which lend themselves most to being digitised.

# NFTs: Closing the loyalty loop & retaining users (Supply)

If we look at the yield farming phenomenon in DeFi 1.0, such as in the various food protocols, where yield was aggressively offered but there was simultaneously an inherent pressure to remove inefficiencies (fees), meant without a mechanism for loyalty there is no form of platform lock in, and only the spectre of a race to the bottom and short term 'yield hunting' and exit scams.

If we think of Liquidity Mining in a marketing context it is really just a form of subsidised user acquisition. It's subsidised because it isn't linked to an actual income stream, at least not yet. You are effectively looking to out spend the competition, which it has to be said is incredibly common in commoditised VC backed consumer tech (like say ride hailing) in what you hope to be a winner takes all market. But it is very difficult to maintain when the money runs out or users can easily switch. In any startup context if you only run this kind of aggressive user acquisition without a retention program you get high churn.

And users switching (in this case liquidity leakage) to chase the next profitable opportunity is exactly what we saw in DeFi 1.0, with hundreds of millions worth of locked value being poured into protocols like Yam, Sushi, but then just as quickly withdrawn to put into the next protocol at the same speed when the inevitably

limited amount of liquidity mining subsidies run out or drop in value.

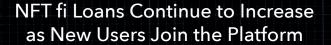
However, NFTs because of their unique nature can serve as rewards with pre-set rules based on loyal behaviour. They can also in principle go up in value, be freely traded and bring yield through a royalties like feature. In effect, you can think of them as a powerful CRM toolkit to lock users in and break negative patterns.

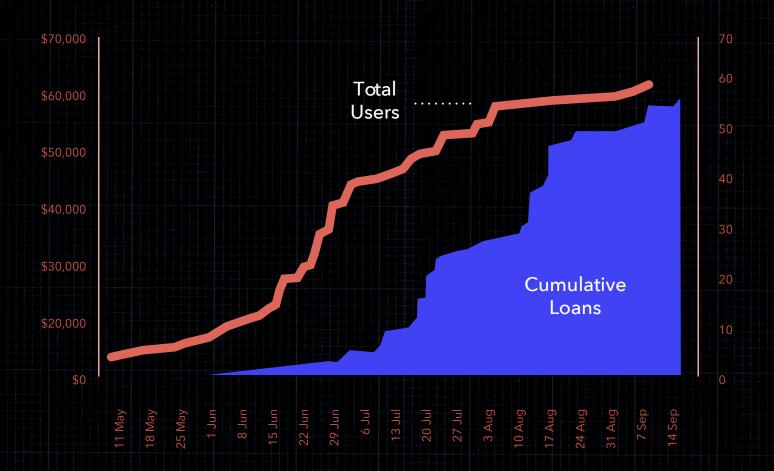
And we have already begun to see them being put to use in DeFi in experiments such as Aave NFT mining. Where users now not only earn yield but also NFTs (Aavegotchis) that increase in value based on the degree of active participation and loyalty in a novel game closely aligned to the Aave lending market economics. Because the whole industry can openly track this mechanism's success, replicate and tweak its code you can expect DeFi to increasingly close the loop with innovative NFTs game theoretics and bring the promise of sustainable growth to DeFi itself.

In addition, because these assets are unique they will presumably have much lower liquidity than a fungible asset bringing a level of stability but also growth as a form of collateral (as leveraged by \$WHALE, an NFT collateral backed social currency, in this case primarily through digital art). Therefore they can also be put to work as collateral in DeFi borrowing markets alongside actual stable currencies themselves like \$DAI. This means good NFT collectors can actually bootstrap collections by borrowing against their collections themselves, as well as earning NFT Marketplace governance tokens and yield like \$RARI (on the Rarible NFT Marketplace), driving up their value and reinforcing the hype cycle.

## NFT Marketplaces: Taking crypto mainstream (Demand)

Many of the NFT use cases such as collectibles, digital art and rewards points are also forms of digital goods people already know and understand and therefore more acceptable to a wider section of society. Because they are often made in visually appealing multimedia form they have the potential for powerful memetics and can be highly viral when shared in social channels like Twitter, Instagram or Twitch tapping into massive existing Web 2.0 user bases.





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Source: Dune Analytics query by Mason Nystrom

In this context, you can think of NFT marketplaces such as SuperRare, Rarible or NiftyGateway as playing a similar function to CEXs (Centralised Exchanges like Binance) during the ICO boom in onboarding retail users. The fact NFTs are actually a form of 'crypto asset' is abstracted away almost entirely, depending on the degree of centralisation (as in some use fiat on and off ramps and others MetaMask only).

But in fact because NFTs are most interesting when considered 'digital consumables'; context driven experiences consumed in virtual environments such as Decentraland, Cryptovoxels, or Sandbox, and it could be argued the most valuable NFT marketplaces will be in the virtual environments they are consumed.

This experiment might start with crypto businesses generally experimenting with NFTs-as-CRM (as being pioneered by Linkdrop, with customers such as Coinbase and Binance who operate in a highly commoditized space) but I believe will quickly be adopted by the wider consumer tech world, especially in demographics where the 'Supreme drop culture' is well established such as fashion and gaming (as being pioneered by companies like Crucible.network) creating a level of demand triggering something much much bigger than the 2017 ICO cycle.

However, there are still some significant barriers that need to be removed before this can happen, most importantly Ethereum gas prices being unsustainable for lower value digital items. Triggers could include:

- ETH2 launch success / adoption
- ETH layer 2 scaling solutions
- ETH cross-chain interoperability (Cosmos / Polkadot)
- ETH cross-chain interoperability with specialist NFT protocols (DApper Labs Fuse, Lukso)
- Ethereum competitors capturing market share
- Transaction and Gas optimization (Biconomy) / economic interoperability (Z!P)

### Portfolio in this segment:

This is not a new thesis but one that has evolved from a powerful feedback loop with a developing portfolio of 30 startups. Below is a summary of those projects mentioned in this article.

- Biconomy, Gas optimization & positive yield farming
- Crucible, NFT identity & vault management
- Linkdrop, NFT user acquisition & retention
- Boson Protocol, dCommerce Digital to physical goods redemption
- ZIP, A cloud credit for multi-chain interchange & ledger usage costs



