



Learn DeFi >

The Second Wave of Decentralized Finance (DeFi 2.0)



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This article aims to provide an overview of the first and second waves of DeFi. It references [blockchain](#) and [cryptocurrency](#). If you are unfamiliar with the concept of DeFi, read our [introductory article to DeFi](#) before reading this article.

What is DeFi 1.0?

[DeFi 1.0](#) introduced a broad range of financial services utilizing blockchain technology, such as [lending and borrowing](#) protocols, decentralized exchanges (DEXs), and yield optimizers. These services eliminated the need for traditional intermediaries and trust mechanisms, reducing the processing time and fees required for monetary transactions.

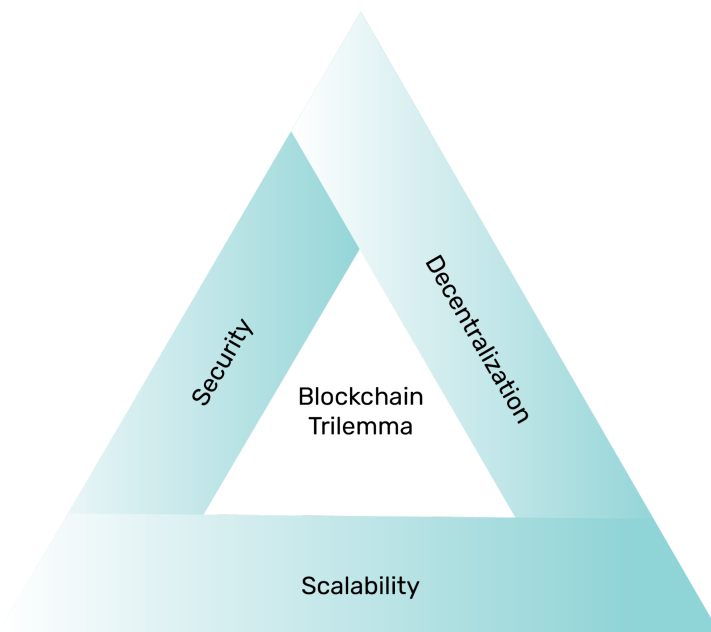
Since its onset in 2020, DeFi 1.0 has experienced tremendous success, with its Total Value Locked (TVL) growing by more than \$199 billion.





The Blockchain Trilemma

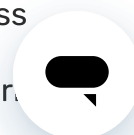
With the rapid advancement of blockchain technology, there persists the need to effectively balance three core elements: Decentralization, Scalability, and Security. Blockchain networks are known to optimize two of these three aspects simultaneously, having to place less focus on the remaining one. [Vitalik Buterin](#) coined this problem as the Blockchain Trilemma.



Decentralization is the essence of blockchain technology. Eliminating the need for central authorities and distributing network control amongst participants established a trustless and permissionless network. However, total decentralization comes with trade-offs, such as low transaction speeds.

Highly decentralized networks like Bitcoin utilize the [Proof-of-Work \(PoW\)](#) consensus mechanism for transaction validation and the creation of new blocks. Due to large amounts of miners securing the network, numerous verifications are required before all the nodes can reach a consensus, leading to low transactional throughput.

Scalability refers to a blockchain's capacity to sustain and accommodate higher transaction numbers and throughput. A blockchain must be scalable to support higher usage and traffic in the future growth of its network, especially if blockchain technology reaches mass adoption. Highly decentralized blockchains with robust security struggle with low transaction speeds but high fees. On the other hand, many fast and scalable networks are highly centralized and prone to attacks.





prioritize decentralization and scalability but are vulnerable to hacks and attacks. Due to the open-source nature of blockchains and their code, many hackers have found loopholes and exploits in these projects, [leading to billions of dollars lost to cyber attacks](#).

Sustaining Liquidity

In order to bootstrap liquidity, many DeFi protocols enhanced capital flow by creating yield farms and liquidity pools with attractive rewards. This allowed them to “rent” liquidity from their users instead of acquiring them from proper investment and funding. With countless protocols in the DeFi space offering ever-increasing yields, users are likely to hop from one protocol to another, chasing the best rewards. Protocols thus face the risk of losing their liquidity and completely falling apart. In order to incentivize users to stay, these projects “bribe” their users to continue using their platform by increasing yield rewards, leading to major capital inefficiency.

Having gone through many stages of development, DeFi seeks to overcome the barriers that stand in the way of its mainstream adoption.

What is DeFi 2.0?

DeFi 2.0 refers to a new generation of protocols developed to address the shortcomings faced in its first iteration while enhancing user accessibility and experience.

	DeFi 1.0	DeFi 2.0
Security and Risk	<ul style="list-style-type: none"> -Lack of protection against smart contract risks -Lack of protection against impermanent loss risks 	<ul style="list-style-type: none"> -Smart contract insurance protocols -Risk due to impermanent loss is reduced or avoided with innovative solutions from DeFi 2.0 protocols
Sustainable Liquidity	<ul style="list-style-type: none"> -Liquidity of assets in protocols is dependent on user loyalty which is hard to retain 	<ul style="list-style-type: none"> -Solutions that incentivize long-term loyalty for LPs
Maximizing Value of Staked Funds	<ul style="list-style-type: none"> -Tokens staked in liquidity pools for LP tokens -LP tokens staked in yield farm for more rewards 	<ul style="list-style-type: none"> -Apart from regular cryptocurrencies, LP tokens can also be used as collateral for various services -LP tokens generate APY while still being unlocked for other concurrent uses
Credit	<ul style="list-style-type: none"> -Loans have to be repaid manually 	<ul style="list-style-type: none"> -New solutions for loans to be repaid automatically with interest generated passively





1. Smart Contract Insurance

The world of DeFi is built around smart contracts. Decentralized applications (dApps) automate processes using these special lines of code that execute whenever certain conditions are met. Since the source code of these dApps are open, every DeFi project is exposed to smart contract risk, which is the danger of getting attacked via loopholes in its code. DeFi insurance projects such as [Nexus Mutual](#) and [Risk Harbor](#) were developed to mitigate the risk of losing locked funds due to cyber-attacks by providing coverage for protocol hacks and failures. By purchasing insurance from these protocols, users are protected from malicious attacks and can claim up to 100% of their locked funds.

2. Impermanent Loss Insurance

[Impermanent loss](#) is the unrealized loss sustained when the price of a user's assets in a liquidity pool changes from that of the original deposit. This can lead to the tokens being worth less than if they were simply held in a wallet. In order to mitigate this risk, protocols such as [Bancor Network](#) offer single-sided staking, where only one token is required to be deposited in a liquidity pool instead of a pair. Liquidity providers earn transaction fees as rewards, which are also used to build an insurance fund securing deposits against the effects of impermanent loss.

3. Capital Efficiency

Numerous DeFi protocols derive their liquidity from incentivizing users to deposit into their platform. With desirable interest rates, these protocols "rent" [mercenary capital](#) from their users. However, as users are constantly seeking projects offering the highest yields and shifting their assets around, this liquidity is unsustainable in the long run.

[OlympusDAO](#) is a protocol that innovated a solution that revolutionized the concept of "owning their liquidity". With a unique bonding mechanism for their OHM token, the protocol owns about 99% of its liquidity by selling discounted tokens to users for assets such as DAI or LP tokens from DEXs. This [Protocol-owned Liquidity \(POL\)](#) model ensures the sustainable liquidity for the Olympus protocol, contributing to greater capital efficiency.

4. Maximizing Value of Staked Funds

In the earlier stages of DeFi, depositing a token pair into liquidity pools allows users to farm Liquidity Provider (LP) tokens as rewards. These LP tokens can then be staked or deposited into other protocols to generate even more yield. Now, users can unlock even more utility and potential of their LP tokens. For example, lending protocols such as [Aave](#) enable borrowers to use LP tokens as collateral, allowing them to earn greater yields while providing a valid use case.

5. Self-Repaying Loans

The new wave of DeFi has brought about many bright and innovative developers who come up with novel concepts such as self-repaying loans. With lending protocols such as





When taking out a loan, users are required to deposit some sort of collateral which would be deposited into a yield farm to generate rewards. This yield would then be automatically used to repay the loan and interest value, making it a seamless experience for borrowers.

Limitations of DeFi 2.0

The risks of participating in DeFi cannot be eliminated but minimized to a certain extent. Regulation and compliance are major issues that need to be addressed and worked around before the space can appeal to a broader audience.

Trust and Security in DeFi

As we deal with these issues, we look towards an increased level of trust and security in DeFi and crypto.

- Increasing the adoption of DAOs where holders can play a part in governance through voting is a way DeFi 2.0 could speed up the process of growth.
- Many projects operate in a gray area where teams are not vetted by the community. This leads to their credibility and intentions not being public information.

Though due diligence and research can be carried out, a project's safety can never be fully guaranteed. Investing always carries risk, so users should evaluate their risk tolerance prior to any action. Treehouse's flagship product, [Harvest](#), can help with that. It flags high-risk assets so that users can stay alert and exercise due diligence when interacting with less-known contracts.

Conclusion

DeFi is a phenomenon that has revolutionized the world of finance. With the advent of these financial instruments and applications, DeFi has completely changed the idea of money by improving the current limitations of TradFi. However, it is still nascent and many limitations lie ahead.

DeFi 2.0 delivers a new generation of protocols and concepts to enhance user accessibility, and improve the shortcomings of the first generation. As crypto and blockchain technology become more widely adopted and regulated across the world, we will definitely begin to see greater transformation in the DeFi space.

New to DeFi? If you found this useful, check out our other [Learn DeFi](#) articles to dive deeper into the wonderful world of DeFi! Alternatively, browse our [Insights](#) section to read more in-depth analyses on the DeFi space. You can also try out our flagship product, [Harvest](#), to get a comprehensive analysis of your DeFi assets. Lastly, subscribe to newsletter updates in the box below!





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