



Introduction to DeFi

What is DeFi?

DeFi stands for Decentralized Finance. The term refers to a class of financial applications that run on [Ethereum](#), are powered by [smart contracts](#) and are accessible to anyone with Internet access. DeFi apps aim to democratize finance by connecting individuals directly via an open, decentralized system that cuts out banks, credit unions and other middlemen. They are designed to offer an alternative to our established "centralized" financial system, which carries fees and can exclude some consumers, and they have significant implications for businesses trying to streamline operations and reach new demographics.

Background

The concept of DeFi first began to surface around the launch of Ethereum in 2015. When Ethereum hit the scene, it was the first platform to feature smart contracts, computer programs that run on the Ethereum Virtual Machine (EVM) and automatically execute actions as soon as predetermined criteria are met. Smart contracts enable developers to build and run decentralized applications (dApps) and are a fundamental component of DeFi.

In our traditional system, it is nearly impossible for consumers to utilize financial services or gain access to capital without going through a bank, credit union or similar financial institution. Working with one of these established organizations means paying the fees that come with them and abiding by the rules and policies put in place by regulatory bodies such as the Federal Reserve. If you cannot gain access to this system for whatever reason, you're left "unbanked" and with few financial options. This can have detrimental impacts on employability, access to funds and quality of life.

DeFi applications aim to address some of these broader challenges and make access to financial services possible for anyone with an Internet connection. This offers tremendous value from a businesses perspective as it provides the ability to reach new demographics that may have been excluded from the traditional system. DeFi apps operate by putting the power in the hands of individuals via a decentralized system that matches buyers and sellers and, thanks to smart contracts, executes on predetermined agreements automatically – with no expensive fee-collecting middleman taking a cut.

When discussing DeFi, it's important to include mention of [stablecoins](#), a type of cryptocurrency whose value is pegged to what is considered a "stable" resource, such as the U.S. dollar or the Euro. This anchor makes stablecoins less volatile than traditional cryptocurrency, yet they remain widely accessible, affordable and easily transmittable. The value of stablecoins in the DeFi space is that they have less fluctuation risk than normal cryptocurrencies, so DeFi lending or borrowing done with them is viewed as safer, assuming the stablecoins are well-designed.

QUICK TAKEAWAYS



DeFi stands for Decentralized Finance and refers to a category of financial applications that run on Ethereum, are powered by smart contracts and utilize cryptocurrency.



The goal of DeFi applications is to democratize finance by cutting out middlemen like banks and credit unions and instead directly connecting individuals via an open, decentralized system available to anyone with an Internet connection.



DeFi offers businesses key benefits – think speed, affordability and security – and also helps companies tap new demographics, outside the financial system. However, it does require users to manage their own assets and is less regulated than the traditional financial system.



DeFi doesn't *need* stablecoins to operate – it can utilize any cryptocurrency – but the stability they help provide goes a long way in mitigating risk, which is a significant plus for businesses.

In addition to running on cryptocurrency, record keeping is another way in which DeFi applications differentiate themselves from the incumbent system. While banks record transactions in a personalized banking history, DeFi transactions are recorded on the blockchain, which is a decentralized public ledger. Records are public and transparent so they cannot be easily altered or deleted, an important security benefit for businesses. Another key security feature stems from the smart contracts that power DeFi applications. Smart contracts are by nature immutable, meaning no changes can be made to the code once they're executed. As such, they are less susceptible to post-deployment edits that could create surprise vulnerabilities.

Aside from offering strong security, DeFi is an appealing approach for businesses because of its price point – cutting out the middleman makes it a cheaper, more economic option. Removing this third party also helps cut back on execution time, another business plus. Additionally, DeFi is generally considered more democratic than the traditional financial system, providing opportunities for more people to profit from a company's success. Finally, as touched on above, DeFi apps open new markets for businesses, allowing them to reach unbanked or lower-income populations that were previously excluded and inaccessible.

However, while the DeFi approach offers significant advantages, there remain a few key challenges. First, businesses may find the transparency of the decentralized public ledger to be a disadvantage. To address this, some [Layer 2s](#) offer encryption options that both preserve the transparency of the transactions and add an extra layer of privacy. Another factor to consider is that DeFi requires users to take a larger role in asset management, which means they must have a strong understanding of the system. DeFi users must also put complete faith in the smart contract powering their DeFi app – and in whoever wrote it. Any minor flaw in the code could leave the DeFi app more vulnerable to hacking and financial loss. In this case, the immutability of smart contracts can be a liability, as errors cannot be fixed after launch without a [workaround](#). Although available, insurance options for DeFi are limited so far.

Scalability of DeFi apps on the host blockchain can also be a challenge, and failure to scale means that DeFi transactions, which are normally fast and affordable, can take longer to confirm and become quite expensive. Lastly, the DeFi space lacks the regulatory oversight of the traditional financial system, which makes it inherently riskier.

There's no denying that DeFi has some liabilities, but the advantages it offers are clear, and many in the business world are catching on. The DeFi space is still young, yet it is growing quite quickly. As of November, 2022, [DeFiLlama](#) reported a total of \$42.54B locked in DeFi. While there remain hurdles for it to overcome, it's clear that DeFi has both a significant following and a real potential to disrupt our traditional financial system.

HOW DO I FIND OUT MORE?



Read: [The EEA's 2022 Ethereum Business Readiness Report](#) to learn about some DeFi use cases



Watch: [DeFi in the Real-World: On-Chain Securitization of Real-World Assets through Ethereum](#)



Peruse: [The Ethereum Foundation's DeFi pages](#)

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About the EEA

The [Enterprise Ethereum Alliance \(EEA\)](#) enables organizations to adopt and use Ethereum technology in their daily business operations. The EEA empowers the Ethereum ecosystem to develop new business opportunities, drive industry adoption, and learn and collaborate.

To learn more about joining the EEA, reach out to james.harsh@entethalliance.org or visit <https://entethalliance.org/become-a-member/>.

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