DeFi EXPLAINED

DISCOVER THE TRUE POWER OF DEFI AND HOW IT COULD TRANSFORM THE FUTURE OF YOUR BUSINESS

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Introduction

DeFi has been driving a cryptocurrency resurgence since 2020 with no sign of stopping.

But, what is DeFi and how does it work?

Decentralized finance (commonly referred to as DeFi) is a blockchain-based form of finance that d**oes not rely on central financial intermediaries** such as brokerages or banks to offer traditional financial instruments.

Instead, it utilizes smart contracts on blockchains, the most common being Ethereum.

So, now that you know what it is, how can you utilize this new technology in your own business?

That's exactly what we'll take a closer look in this special report.

DeFi Explained

As mentioned on the introduction page, DeFi stands for *Decentralized Finance.*

This means that the financial services are carried out on a blockchain instead of through a brokerage or bank.

In today's financial world, financial institutions act as guarantors for any transactions. This gives them immense power over your money.

Decentralized Finances are services with no central authority controlling them. Decentralized exchanges allow for peer-to-peer cryptocurrency transfers with no middleman.

Forkast News calls it "the merger between traditional banking services with blockchain technology."

DeFi involves taking traditional elements of the financial system and replacing the middleman with a smart contract.

This means DeFi needs a decentralized infrastructure to run on, like the Etherium blockchain. This blockchain is a do-it-yourself platform for DAPPS or Decentralized Applications.

About 96% of DeFi protocols operate on Etherium, although a small number have migrated to competing blockchains because of increased speed.

In decentralized transactions, the typical overseers of those transactions (banks, stockbrokers, government institutions, etc.) are replaced by blockchain.

Because users don't need to transfer their assets to the exchange, decentralized exchanges reduce the risk of theft from hacking of the exchanges.

They're also more anonymous than exchanges which require your identity on all transactions and can prevent price manipulation or faked trading volume.

DeFi's goals are to utilize technology to remove intermediaries between parties in a financial transaction. Its components are stablecoins, use

cases, and a software stack that allows the development of applications.

This infrastructure and use cases are still in development, though plenty of users have jumped on the DeFi bandwagon.

The Rise of DeFi

DeFi's origin is often traced back to 2015, when a platform called MakerDAO allowed people to utilize cryptocurrency for collateral on their loans.

DeFi, like the traditional cryptocurrencies, promises to do away with the unnecessary intermediaries like banks and stockbrokers. This viewpoint Is fueling the market lately.

Bitcoin was created in 2009 as an alternative to traditional finance (and financial authorities like banks and stockbrokers), but many limitations still exist.

hile Bitcoin was meant to function like money, its functionality depends on a network of new central authorities that are acting much like the institutions they were meant to replace.

Miners, node operators, wallets, and exchanges—these authorities are showing a distinct proclivity for acting just like banks and stockbrokers.

In other words, Bitcoin doesn’t seem to be truly decentralized.

A true decentralized system should be run by the people alone. Bitcoin has given us glimpses of this but has ultimately fallen short of its goal.

With DeFi, there are no central authorities and protocol are run by smart contracts designed to eliminate foul play.

The open financial network is trustless and decentralized, facts that have attracted many investors.

DeFi's Top Applications

Now that we've explained what DeFi is and what caused its rise in popularity, let's look at some of the more notable applications for this protocol.

Decentralized Exchanges (DEXs): these are exchanges that operate without an intermediary.

With a DEX, users can connect directly with one another to buy and sell cryptocurrencies.

Any assets traded under a DEX are not held in escrow or in a third party wallet the way a centralized exchange would do. Some top DEXs include Uniswap, SushiSwap, and Curve.

These exchanges are not as popular as centralized exchanges, which are operated by a central authority.

Coinbase and Binance are examples of centralized exchanges and are custodial in nature because the buyers and sellers trust the central authority to keep their assets safe.

Lending Platforms: these use smart contracts in place of third parties like banks or stockbrokers. This allows lenders and borrowers to participate in an open system.

Proponents of DeFi claim that these platforms are democratizing the entire financial landscape.

In decentralized lending platforms, lenders can earn interest on cryptocurrency assets by loaning them out, while borrowers can assess liquidity without actually selling off those assets.

With our traditional financial situation, you must offer collateral before you can get a loan from the bank. DeFi is similar, but borrowers have to offer assets which add up to more than the total loan in order to obtain that loan.

Some of the top DeFi lending platforms include Aave, Maker, and Compound.

Prediction Markets: these allow you to bet on the outcome of a future event, such as a presidential election.

In fact, they flourished during the 2020 elections, with Augur recording a milestone volume of over $8 million.

Prediction market platforms act like traditional prediction markets, but with blockchain functionality, which means no intermediaries. Some examples include Gnosis, Augur, and FTX.

Yield Farming: this is the hottest new term in DeFi. It's the process of locking up cryptocurrencies in exchange for some sort of reward.

Yield farmers stake popular coins like ether, tether, dai, etc. Aave and Compound are two of the major platforms to farm DeFi yields.

The True Power of DeFi

Traditional banks are bureaucratic. They're expensive to run, too. They take too long to process transactions—sometimes days—and have excluded many people from the financial system due to their stringent requirements.

Here are some of the benefits of decentralized finance.

It is permissionless.

DeFi opens the financial system to everyone regardless of race, income, culture, or geographic location.

All anyone needs is a connection to the internet via a smartphone or computer.

In 2018, the World Bank estimated that some 20% of the world's population has no access to banking services. Mostly, this is because they lack required government-issued identification cards.

There are several DeFi platforms that allow these people to access banking services.

For example, you can take out a Maker loan without identification or even a credit score.

It offers interest rates for investors.

You can keep your assets like a traditional savings account if you wish, but DeFi also offers the chance to earn interest on your assets.

Platforms like Compound and Aave will let you deposit your cryptocurrency and then loan it out to borrowers.

At some agreed-upon time, you collect your interest on that cryptocurrency and can return your capital to the system.

Compound offers up to 4.3% interest on deposits from some tokens and Aave is offering as much as 5.73%.

Compared to the pittance (0.06% or 0.07%) offered by traditional banking establishments for savings accounts, this is an amazingly high

interest rate. You can see why people are switching from traditional banking to DeFi.

If offers control over your own finances.

No one can ban you from a DeFi protocol. You have control over your own finances instead of depending on a third party to approve your loan.

While you do have to deposit your funds into the platform, what happens to those funds is up to you. The underlying smart contract takes the place of the traditional human intermediary.

It offers heightened transparency.

DeFi allows a far greater degree of openness and accessibility. Since most of the DeFi protocols are built on the public ledger of a blockchain, every activity is available to the public.

Anyone can view any transaction, but these transactions are not tied to any individual the way they are with a traditional bank.

Instead, DeFi accounts list only numerical addresses.

Also, users with programming knowledge can access most of the source code to audit or build upon, since these are open-source codes.

This type of code is of a higher quality and far more secure than proprietary software, thanks to community interaction.

It offers increased access.

One of the biggest reasons people without bank accounts can't make financial transactions is that they lack documentation proving their identity, such as government-issued identification cards, credit cards, or passports.

This also prevents them from enjoying social benefits like owning property, which severly limits their opportunity for growth.

That barrier is lifted when you use DeFi. "Digital identities," says Entrepreneur, "serve one of the essential components of DeFi." A digital identity may be a profile that is linked to a device's IP address, or a randomly generated unique ID.

It could also be tied to a user ID and password.

With this identification, any user anywhere in the world could buy, sell, loan, or borroy cryptocurrency.

The Downsides to DeFi

Nothing is perfect and decentralized finance is no exception. Here are some of the negative aspects of0 the platform.

Security issues:

The smart contracts which form the backbone of the DeFi platform are susceptible to manipulation.

By default, these contracts are open-source.

This design allows you to inspect and review them before making your decision to invest in the DeFi protocol.

Most DeFi protocols hand their contracts over to security firms for auditing—and that's where they may run into trouble. Human beings can miss flaws in these contracts that might be exploited at some future date.

As an example, take a look at the DAO or Decentralized Autonomous Organization.

This investor-directed venture capital fund was launched in April of 2016. It quickly grew to become one of the world's biggest crowdfunding platform, managing around $120 million.

By June of that same year, hackers had located and exploited a vulnerability in the smart contract.

They stole about a third of the funds, relocating them into a "child DAO" with the same structure as the parent protocol. It took weeks for some users to be able to access their funds, making this the largest hack in crowdfunding history.

This incident alerted the DeFi community and now, developers who build protocols ensure that their smart contracts undergo multiple rounds of auditing.

Data feed centralization: Blockchain protocols can't access data that is off-chain. In order to remedy this shortcoming, many use third-party

services called oracles. These allow access to needed external information.

As Forkast puts it, “Oracles serve as bridges between blockchains and the external world, relaying information to smart contracts for them to utilize.”

The major issue with all this is how to create a central trust point in a trustless and decentralized setup.

This can provide a vulnerability for the entire smart contract. If an oracle should broadcast the wrong information, it could wreak havoc with the entire system.

Let’s look at the case of Synthetix, for example.

This is a DeFi asset issuance platform. In June, 2019, an oracle transmitted false price feed information to the platform’s smart contract.

One user’s trading bot took advantage of this error and bought big, inflating the user’s balance, allowing that user to convert around 37

million Synthetic ETH (sETH) tokens—worth around $70 million! The company later reached out to the user, who agreed to reverse the transaction in return for an undisclosed “bug bounty.”

Hackers:

In September 2020, top crypto exchange KuCoin confirmed that hackers had transferred about $150 million in Bitcoun and ERC-20 tokens from its hot wallets.

Days after the actual event, blockchain intelligence software Elliptic did the math and discovered that the exchange had actually lost about $281 million.

The hackers laundered the funds through DeFi protocols Kyber Network, Uniswap, and others.

Elliptic explained that many centralized exchanges had frozen the hackers’ accounts so they couldn’t move the funds, but that they had utilized decentralized exchanges which had no central authorities to freeze their illegally obtained funds.

The Future of DeFi

"DeFi's performance in 2020," says Forkast, "has put the entire crypto market on notice."

With assets increasing in value, even some of the traditional crypto companies are wanting in on the action.

According to DeFi Pulse, the total value locked in DeFi is more than $16 billion (US Dollars). As of December 2020, this is an increase of more than 2300% since January of that year.

Unfortunately, this boom has attracted a lot of criminal activity. Crypto analytics firm CipherTrace recently reported that total losses from DeFi thefts in 2020 exceeds $100 million.

In the second half of the year, half of all cryptocurrency thefts were from DeFi protocols.

And centralized exchange KuCoin had about $19 million liquidated by thieves using decentralized exchanges.

The DeFi industry is still in its beginning phases. There's plenty of room to grow but it's suffering "the same growing pains as the crypto space as a whole."

Despite the benefits and returns, DeFi may still be a risky endeavor for investors.

What We Can Do:

Here are three of the biggest bottlenecks to DeFi's growth, as Entrepreneur sees it, and some ways we can resolve them.

Volatility:

"It may seem strange," says Entrepreneur, "to imply that there are issues with an industry that's worth over $50 billion at the time of writing—but keep in mind that it was worth $80 billion just a week earlier, according to data gathered by DeFi Pulse."

For many, this extreme volatility is what's exciting. It offers exponential short-term returns on their investments.

For others, that volatility is terrifying. They're afraid to risk anything. The so-called "DeFi Summer" of 2020 saw projects like Uniswap and Compound "pull gargantuan market caps" as they introduced millions in liquidity to this new financial community.

However, months afterwards, many of these fell sharply in value "after the initial wave of hype died down."

"Even worse," Entrepreneur reports, "many over-leveraged users of these platforms saw their holdings disappear the next February and May, having billions of dollars worth of coins liquidated as a result of a tempestuous market."

One solution to this volatility is stablecoins.

These are cryptocurrencies tied to the value of traditional currencies such as the US dollar.

Tokens like USDC, Tether, or DAI allow less reckless investors to try DeFi without worrying about such wild price swings.

China's latest venture into Central Bank Digital Currencies might have the potential to replace bank notes as the new standard for currency exchange. This would allow people all over the world to utilize DeFi protocols.

Canada and the United States are also looking into creating cryptocurrency exchange-traded funds (ETFs). While they are not decentralized, these funds are a way "for investors in traditional exchanges to gain exposure to potential profits from DeFi projects while limiting the risk."

Decentralized ETFs are also being explored. Entrepreneur reports that the DeFi Pulse Index looks good. This might be a good way to create a less volatile asset.

Accountability:

One of DeFi's strongest selling points is that decentralization.

“The optimistic point of view,” says Entrepreneur writer Bryce Welker, is that replacing laws and institutions with smart contracts and blockchains will prevent the corruption, fraud, and inequity that has plagued our existing financial systems.”

It sounds like some sort of science fiction utopia—an impartial system backed by automation. But the reality is that “the darker elements of human nature” can still interfere with the development of this utopia.

For example, although Bitcoin’s technology is designed to be almost impregnable, it still might be vulnerable to an attack.

And the cryptocurrency platforms don’t always live up to their utopian promises. “In that context,” says Welker, “it’s hard to be optimistic about the Ethereum Foundation’s ability to address the pervasive scaling issues that are causing ludicrously high gas fees on every transaction.”

To fix this, we need to put accountability in the hands of the people who deserve it most—those invested in making the best decisions for the project.

People who utilize DeFi are often issued governance tokens for their participation. The intended use of these tokens is to cast votes on any decisions the project will face in the future.

Another way to promote accountability is to create competition.

Alternate blockchains like Cardano are currently trying this approach with Ethereum, promising similar benefits like faster transaction speeds, lower fees and greater energy efficiency.

Perception:

If you asked someone whose only exposure to DeFi was breaking news, Welker says “he or she would probably describe it as a mix of tulip speculation, money laundering, and a casino.”

Perception is probably DeFi’s worst enemy, and a leading cause of the first two problems.

“It’s tough to justify,” adds Welker, “getting involved in a financial ecosystem that can seemingly collapse from a single tweet made by a known market manipulator,” as when Elon Musk tweeted about maybe taking Tesla private.

The worst-case scenario is that users will simply return to a centralized institutions like banks and stockbrokers for solutions to this problem.

World governments and financial magnates would love to get their hands on this technology because it poses a threat to their existing power structures.

Welker feels that the only way the financial movement can attain its full potential is to “reinvent itself as a separate entity from traditional economics and a fiat currency.

If you stop thinking about Bitcoin, Ethereum, and altcoins in terms of their dollar value, you can escape the hegemony of the dollar and the ticking time bomb of hyperinflation.”

Final Words

Most people are only familiar with DeFi on a surface level: they know it has the potential to widen financial inclusion, for example, or to encourage permissionless innovation.

Entrepreneur feels that many skeptics just don't fully grasp the opportunities it presents. 'Many entrepreneurs," they say, "have chosen to get on board because DeFi, by nature, removes many of the barriers to entry that prevented small-/mid-size enterprises and start-ups from entering the market."

"DeFi today is still very much the Wild West," says Worth. "Thieves, federal investigations, cyberattacks, and a new class of brash capitalists chasing a gold rush: it's the American love story with capitalism, exported on a global level."

"DeFi is the new lemonade stand," Entrepreneur quips. "The time has come to address the most significant issue in centralized finance: too few people are in control."

The concept of the lemonade stand is an apt one: you're providing goods or services your fellow humans want or need, and they pay you for them. There's no need for an intermediary like a bank or financial manager.

It's also appropriate in that it takes very little real money to set up such a "lemonade stand."

Creating a lemonade stand isn't just about starting a business, either. It's about contacting other people, forming networks that can work to everyone's favor in the future.

"Anyone in the world," says Entrepreneur Magazine, "should be able to create a marketing strategy for their project or product without facing multiple insurmountable roadblocks along the way."

DeFi offers such a chance for the entrepreneur. More importantly, this concept can benefit any type of business model, concept, or idea.

All you need is a good idea, an internet connection, and a few minutes to set it all up. Spend some more time researching and getting to better understand the power of DeFi.

Then you can set up your own lemonade stand. ;)

To your success,

Resources

Here are links to a few resources that I believe will help you:

Defining DeFi:

>> https://www.fool.com/investing/stock-market/market-sectors/financials/blockchain-stocks/decentralized-finance/

How Decentralized Finance Will Transform Business:

>> https://www.weforum.org/agenda/2021/07/decentralized-finance-transaction-banking-smes/

Small Business Crypto Lending (DeFi) Platforms:

>> https://sourceforge.net/software/crypto-lending-defi/for-small-business/

Enterprise DeFi Explained:

>> https://medium.com/unidocore/what-is-enterprise-defi-why-are-big-businesses-entering-the-defi-space-35aa97a1d215