AACE

establishes a layer2 high-performance solution compatible with the web3.0 business ecosystem.

white paper v1

This is a free experiment vision. It contains the technology we need for the project and we will never tire of finding this point. But I would say that exploration has no end. Whether we succeed or not, someone will succeed

Abstract

7 major flaws in the global financial system

Since the invention of the banking industry, the global financial system has become more and more centralized. In the modern system, the central bank now controls everything from interest rates to currency issuance, while government regulators, businesses, and intergovernmental organizations exert unparalleled influence at the top of this critical food chain. There is no doubt that this centralization has led to the creation of a great deal of wealth, especially for those who have proper connections to the financial system. However, the same centralization can also be said to be the cause of many global challenges and risks we face today.

1. Billions of people around the world have no bank accounts

To participate in the global financial sector, whether to make digital payments or manage your own wealth, you must have access to bank accounts. However, there are still 1.7 billion adults in the world who do not have a bank account, and they have zero access to the accounts of financial institutions or mobile money providers.

2. Global financial literacy is still low

To successfully use financial services and markets, people must have a certain degree of financial literacy. According to a recent global survey, only one-third of people show an understanding of basic financial concepts, and most of them live in high-income economies. If you do not understand the key concepts in finance, most people will have difficulty making the right decision- and it will be difficult to accumulate wealth.

3. High intermediary costs and slow transactions

Once a person has access to financial services, sending and storing funds should be cheap and fast. However, the situation is quite the opposite. Globally, the average cost of remittance is 7.01% of the cost of each transaction—and when using a bank, this proportion rises to 10.53%. To make matters worse, these transactions may take several days at a time, which seems unnecessary in today's digital age.

4. For financial institutions and governments

The financial sector is the least trusted business sector in the world. According to Edelman, its trust level is only 57%. At the same time, trust in the government is even lower, with only 40% trusting the US government, compared to 47% in global countries on average.

5. Rising global inequality

In fact, according to recent data on global wealth concentration, the top 1% own 47% of all household wealth, while the top 10% own about 85%. In a centralized system, financial markets are often dominated by those who are most closely connected with them.

6. Currency manipulation and review

In a centralized system, the state has the right to manipulate and devalue legal tender, which will have a destructive effect on the market and citizens' lives. For example, in Venezuela, the government continuously devalues its currency, resulting in out-of-control hyperinflation.

7. The accumulation of systemic risks

Finally, centralization creates a final and important flaw. Since financial power is only concentrated in the hands of a few institutions, this means that a complete bankruptcy may destroy the entire system.

Contents

Chapter 1: Traditional Financial Institutions

Banks are giants in the financial industry, providing convenient payment, savings, and credit services to individuals, enterprises, other financial institutions, and even the government. In fact, their scale is so large that the total market value of the world's top ten banks is as high as $2 trillion. In contrast, as of December 21, 2019, the total market value of the entire cryptocurrency market was only about 200 billion U.S. dollars.

TOP 10 WORLD BANKS

Rank	Previous	Bank	Country	Tier 1 capital $bn
1	1	ICBC	China	338
2	2	China Construction Bank	China	287
3	4	Agricultural Bank of China	China	243
4.	3	Bank of China	China	230
5	5	JP Morgan Chase	US	209
6	6	Bank of America	US	189
7	7	Wells Fargo	US	168
8	8	Citigroup	US	158
9	10	HSBC	UK	147
10	9	Mitsubishi UFJ	Japan	146

The bank is a key component of the circulation machine. The circulation machine is the financial industry- they provide services such as value transfer (deposits, withdrawals, transfers) and increased credit lines (loans) so that funds can flow freely around the world. However, banks are managed by people and are subject to policy supervision, so they are vulnerable to people-related risks, such as mismanagement and corruption.

The 2008 global financial crisis was a manifestation of banks' excessive risk appetite, and the government was forced to provide large-scale assistance to banks. The crisis exposed the shortcomings of the traditional financial system and highlighted the need to improve the financial system.

DeFi attempts to use the emerging Internet and blockchain technology to create a better financial environment. It especially optimizes three key parts of the banking system:

1. Payment & Clearing System (Remittance)
2. Availability
3. Centralization & transparency

1. Payment and clearing system

If you have ever tried to send money to someone or a company in another country, then you should be able to deeply feel the pain points- remittances involving banks around the world usually

take several working days to complete1, and will include types Many handling fees. To make matters worse, there may also be issues related to the supporting documents required for remittances, compliance with anti-money laundering laws, and privacy.
The cryptocurrency advancing the DeFi movement allows you to bypass the middleman who captures a large share of profits in the transfer process. Transfers are also likely to become faster-your transfer transactions will be processed unconditionally, and you only need to pay a lower fee than the bank. For example, it only takes 15 seconds to 5 minutes to transfer cryptocurrency to any account in the world (depending on various factors2) and a small fee (for example, the fee on Ethereum is about 0.02 Dollar).

2. Availability
If you are reading this book, there is a high probability that you will have a bank account and will be able to obtain financial services provided by the bank, such as account opening, loans, and investment. However, there are many more unlucky people who don't even have the most basic savings account.

3. Centralization & transparency
It is undeniable that traditional financial institutions such as banks that are regulated and follow government laws and regulations are one of the safest places to store funds. But they are not without flaws-even big banks can fail. In 2008, Washington Mutual, which had deposits of more than US$188 billion5, and Lehman Brothers, which had assets of more than US$639 billion6, both went bankrupt. In the United States alone, there are records of over 500 bank failures7.
Banks are one of the central nodes leading to the collapse of the financial system-the collapse of Lehman Brothers triggered the 2008 financial crisis. It is very dangerous to concentrate power and capital in the hands of banks. Judging from past events, this view is completely correct.
Transparency is also closely related to this-ordinary investors cannot fully understand the operations of financial institutions. The series of events that led to the 2008 financial crisis included credit rating agencies giving high-risk mortgage securities8 a AAA rating (the best and safest investment).

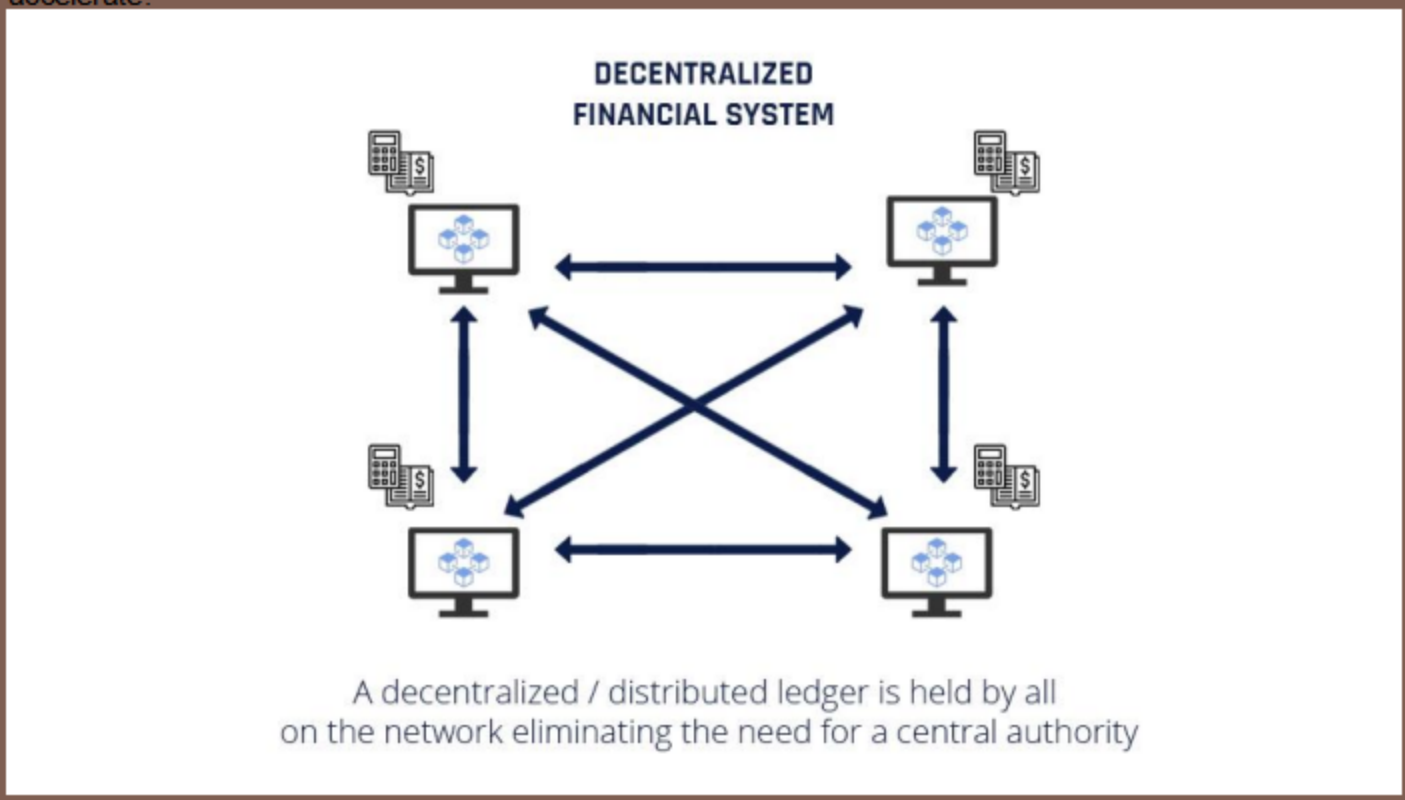
DeFi will be different in this respect. Most of the DeFi protocols built on public blockchains (such as Ethereum) are open source, facilitating auditing and improving transparency. These agreements usually have decentralized governance organizations to ensure that everyone knows what is happening and that no malicious actors can make malicious decisions alone.

The DeFi protocol will be written as lines of code-you can't cheat the code because it treats everyone the same and does not treat it differently. The code runs exactly the way it was written. Since the code will be open source for public review, any vulnerabilities will be quickly revealed. In the final analysis, the biggest advantage of DeFi lies in its ability to eliminate intermediaries and operate in a zero-censorship environment.

Chapter 2: What is Decentralized Finance (DEFI)?

Decentralized finance describes a new decentralized financial system, which is built on public blockchains like Bitcoin and Ethereum. After all, Bitcoin and Ethereum are not just digital currencies—they are fundamental open source networks that can be used to change the way the global economy works.

There are six main characteristics of public blockchains and private networks used by governments and traditional financial institutions:
No permission required: anyone in the world can connect to the network
Decentralization: records are stored on thousands of computers at the same time
No trust: no central party is required to ensure that the transaction is valid
Transparency: All transactions are publicly auditable
Anti- censorship: The central party cannot invalidate user transactions
Programmable: Developers can program business logic into low- cost financial services
In such a financial system, users will have access to applications that use public blockchains to participate in the new open global market-but how will the global financial system become better? Decentralized finance is a concept based on blockchain. Because it can become a financial tool that is not controlled by the government and supervision, it may subvert traditional finance. With the increasing demand for data and privacy security, the creation of a completely decentralized and independent financial system continues to
accelerate.



The potential impact of decentralized finance
1 . Here are five ways that decentralized finance has an impact on the world:
Broader access to global financial services
Through decentralized finance, anyone with an internet connection and a smartphone can access financial services. There are multiple barriers in the current system that prevent access:
Status: Lack of citizenship, documents, certificates, etc.
Wealth: high entry- level capital needed to obtain financial services,

2. Affordable cross-border payments

Decentralized finance eliminates costly intermediaries and makes remittance services more affordable for the global population.

In the current system, the cost of remittances across borders is prohibitively high: the average global remittance fee is 7%. Through decentralized financial services, remittance fees can be lower than 3%.

3. Improve privacy and security

In decentralized finance, users can keep their wealth and can conduct transactions safely without central party verification. At the same time, in the current system, if people's wealth and information cannot be protected, custodians will put them at risk.

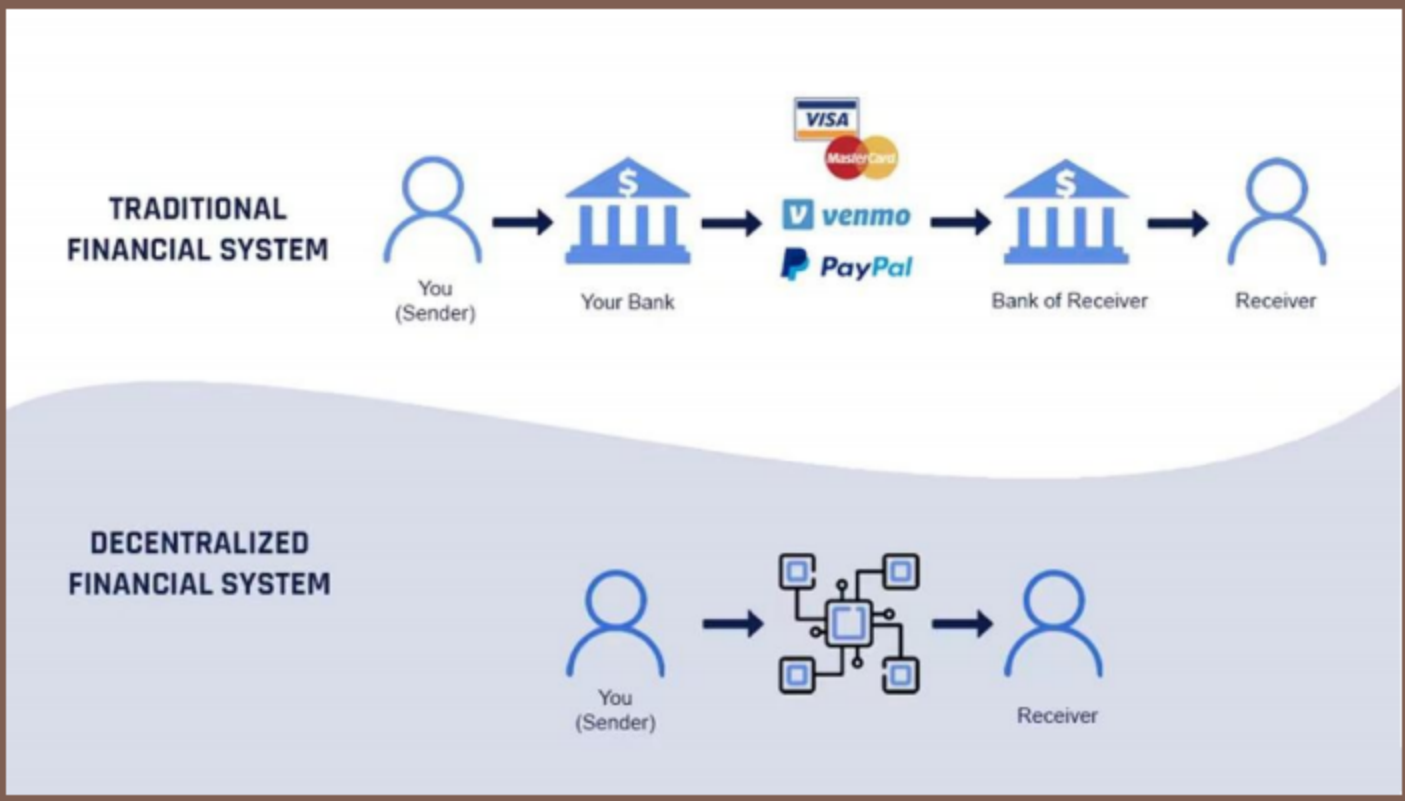
4. Anti-censorship transactions

In a decentralized financial system, transactions are immutable, and the blockchain cannot be shut down by central institutions such as the government, central bank, or large company.

5. Simple to use

Plug-and-play applications will allow people to intuitively use decentralized financial services without the complexity of centralized systems.

With the help of a decentralized system, Filipino women can obtain loans from the United States, invest in businesses in Colombia, and then pay off debts and buy houses-all through interoperable applications.



Unless governments and central banks suddenly cease to exist, it is difficult to imagine a world where decentralized finance completely replaces centralized finance. But what if they can coexist? The shared blockchain can interact with the traditional financial system to create a new hybrid model: users can conduct economic activities on the public blockchain and exchange their new

wealth into the centralized system. Users can hedge against systemic risks by diversifying their wealth in a central and decentralized system. Just like the Internet with knowledge, decentralized finance helps democratize the financial system.

Part 2: Balance. Finance Ecosystem

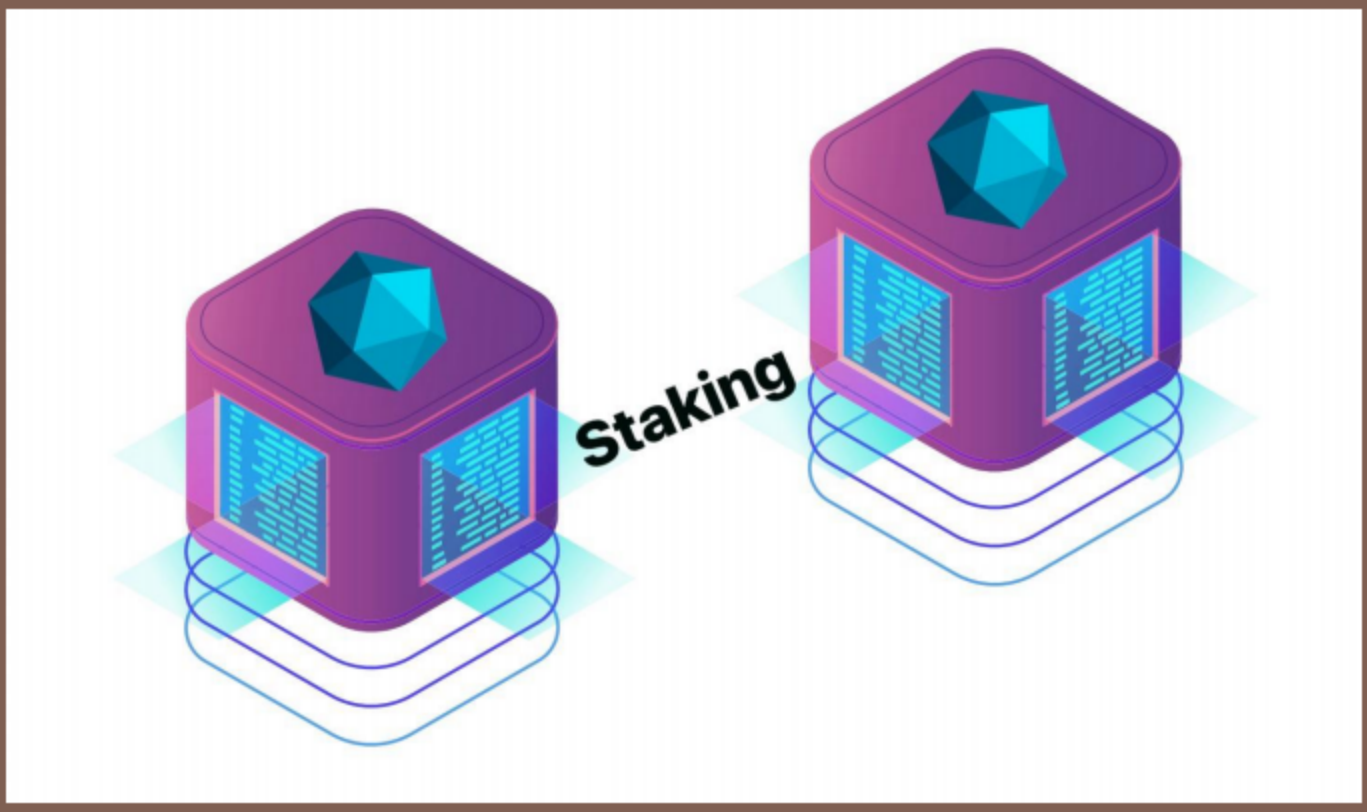
Chapter 1: What is Balance. Finance?

AACE is a self-built experiment in a decentralized community. It aims to create a completely decentralized DeFi protocol. The original vision is to achieve equality and cooperation for everyone. It will return 1% of each transaction and distribute 1% of the local currency to all holders. It is suitable for deposits, agriculture, borrowing, payment, insurance, etc. and establishes a layer2 high-performance solution compatible with the web3.0 business ecosystem.

Contract address https://www.bscscan.com/token/0xc22c2bd854696c2d33efd1f021862f4bd5c0dc69

------ Staking

In the balance.finance ecosystem, in order to enable users to obtain stable interest, we have launched fixed deposits like banks. On the premise of staking AACE in their hands, users will have a steady stream of AACE token interest income every day.



Under normal circumstances, we initially set AACE as a deposit to earn AACE interest. In order to enable users to obtain greater income, we set APY to 4 5 %. The longer the staking time is, the more interest will be earned . Then, when the staking ecosystem starts, the data will be displayed on the page and anyone can browse it.

------Yield farming

Then farming will be an important core component in the balance ecology. People will provide liquidity to get rewards. Compared with staking, the rewards will be diversified. For example, users provide (AACE/BNB) to get the corresponding lp, add users You can use lp to transform the corresponding xAACE to get more AACE. The initial setting value is APY80%. Conclusion: For liquidity providers, not only can they get a percentage of the transaction fee but also more AACE real rewards. This is our best recommendation method. At present, we disclose only this and more information will be released before the release To determine the matter.

-----Borrow

In balance.finance, since banks are no longer needed, such barriers no longer exist. As long as there is sufficient collateral, anyone can obtain funds to do what they want. Lending is no longer the patent of the rich. Everyone can inject capital into the decentralized liquidity pool, and the borrower can withdraw funds from it and repay the loan at an interest rate determined by an algorithm. Unlike applying for a loan through a bank that has strict Know-your-customer (KYC) and anti-money laundering (AML) policies, users only need to provide collateral to obtain a loan in balance. finance

Anyone can provide or borrow cryptocurrency without friction. Five different tokens are available on the balance platform or can be used as collateral, including AACE, DAI, ETH, USDT, WBTC.

Loan interest

In the balance, the interest rate is expressed by the annual interest rate (Annual Percentage Yield, APY), and the value is different among different assets. Balance uses an algorithm to measure the supply and demand of assets to derive the interest rates of different assets.

In essence, balance reduces borrowing friction by allowing lenders/borrowers to directly interact with the agreement to obtain interest rates without negotiating loan terms (such as maturity date, interest rate, counterparty, collateral), thereby reducing borrowing friction and creating a more Efficient money market.

Different assets have different annual interest rates (APY), because the value is set through algorithms based on asset supply and demand. Generally speaking, the higher the demand for borrowing, the higher the annual interest rate (APY), and vice versa.

Eth: supply apy 0.01% gross borrow 770k Dollar borrow apy: 2.1%
Dai: supply apy 7.58% gross borrow 17.5M Dollar borrow apy: 8%
Usdt supply apy 5.48% gross borrow 17.65M Dollar borrow apy: 8.92%

Taking the DAI stablecoin as an example, the lender will earn 7.58% interest within one year, while the borrower will need to pay 8.00% interest within one year

Start earning interest on the balance

To earn interest, you must provide assets to the agreement. Once you deposit your assets into the balance, you will immediately start earning interest on the deposited assets! Interest will be accumulated on your investment and calculated after each Ethereum block (about 20 seconds on average) is generated.

When depositing, you will receive the corresponding amount of xToken. If you deposit DAI, you will receive cDAI; if you provide ETH, you will receive cETH, and so on. Interest will not be distributed to you immediately, but accumulated on the xToken you currently hold, and xToken can be exchanged for the underlying assets and interest it represents.

Start borrowing on the balance

Before borrowing, you must provide assets to the system as collateral for your loan. Every asset

All have different mortgage rates. The more assets you provide, the stronger your ability to borrow.

The borrowed assets will be sent directly to your Ethereum wallet. From then on, you can use them as you wish! Please note that borrowing will charge a small fee of 0.025% to avoid abuse and misuse of the balance protocol.

Changes in the price of collateral assets

1. If you are considering putting in collateral to obtain a loan, you may ask-if the collateral is
2. What happens when the value changes? Let's take a look:

   Collateral appreciation If the value of your mortgaged assets rises, your mortgage rate will rise. All this is normal— nothing will happen, and you can withdraw more loans if you want.

3. Collateral depreciation On the other hand, if the collateral depreciates so that your mortgage rate is now lower than the required mortgage rate, your collateral will be partially sold and a 5% liquidation fee will be charged. The process of selling collateral to achieve the minimum mortgage rate is called liquidation.
4. Liquidation

5. Liquidation occurs when the value provided by the collateral is lower than the borrowed money. This is to ensure that the withdrawal and lending of funds always have an excess cash capacity, while protecting the borrower from the risk of default. The current liquidation fee is 5%.

-----Pay

Although decentralized payments can be done through the transfer of ETH or DAI, it can still be done better-achieving cheaper and faster transactions, regular transfers, conditional transfers, standardized invoice formats, and so on.

Why is this important?

We believe that balance has the potential to help those who live on basic wages. These people are the most vulnerable to wage arrears. Even a few days in arrears may prevent them from buying the food they need.

When this happens, they usually rely on payday loans—a short-term unsecured loan with high interest rates (up to 500% per annum). High interest rates and insufficient income make payday loan providers particularly vulnerable to spiralling ministry debt. In the United States, many people have been arrested for failing to repay their loans.

Trust

For new employees who work remotely, they need to trust the new employer to pay for the work they do. Streaming payment is especially useful at this time. When signing a contract through balance, both parties can confirm that the salary will be paid and verified in real time.

Timeliness Traditionally, salaries are paid monthly or biweekly, but in some cases, there may be funding needs at any time-streaming payments can help achieve this goal. A salaried employee does not have to wait until the payday to get paid— he can withdraw all the compensation he has earned so far in response to an emergency. In addition, this can also avoid wage arrears. Although employees fully trust their employers, streaming payment guarantees that the funds will be fully paid at the end of the cycle!

However, with the advent of streaming payments, you no longer need to trust any party. You can pay at the price per minute to ensure that you and your customers can get the corresponding value, and if they try to avoid payment, you will only lose 1 minute of time. In essence, the "trust" part of online transactions has been transferred from people to immutable codes (blockchains and smart contracts).

-----insurance

Before using DeFi applications, users need to pledge their tokens in a smart contract. Due to the existence of potentially huge expenditure scenarios, tokens pledged in smart contracts are vulnerable to security attacks. Although the smart contracts of most projects have been code audited, people can never know whether the smart contract is really safe, and there is always the possibility of being hacked, which will cause the loss of funds.

If users use AACE for large transactions, they can consider purchasing insurance to reduce transaction risks.

As described earlier, when someone borrows DAI, they will get xDAI tokens in return. Traders can purchase xToken, which can be used as the right to sell xDAI, and recover DAI when the smart contract on the balance platform is attacked.

Purchasing insurance worth 1DAI on the balance is actually buying an American put option of xDAI assets at an exercise price of 0.89 USD. When the balance platform is attacked, any DAI deposit on the balance will no longer be worth $1, but less, such as $0.10. Using balance's xcDAI token, insurance purchasers can redeem ETH worth 0.89 USD. This can protect users from losses caused by smart contracts. There is no need for a centralized institution to verify claims, so it is truly decentralized insurance.

What is the insurance cost?

The cost of using the balance platform to purchase insurance is roughly equal to the following annual percentage: Dai deposit is 1.3%, USDC deposit is 2.4%. This means that if you get an uninsured rate of return of 5.2% on your Dai deposit, you can be assured of a 4.4% rate of return after purchasing insurance.

Please note that since insurance is tokenized in the form of xToken, it can be traded on a DEX like Uniswap, which is why the price of insurance depends on market supply and demand.

Why would anyone provide insurance on balance?

1. Insurance providers can issue xToken for USDC or DAI on the balance platform.

   Once xToken is issued, there are two exciting ways to earn premiums: 1. Become a Uniswap liquidity providerUniswap's liquidity providers provide liquidity through Uniswap tools, earning users' handling fees for using the balance platform, and obtaining generous returns. Liquidity providers can withdraw funds at any time.

2. Sell xToken on Uniswap The xToken issued can be sold on Uniswap. You can view the main control dashboard of the balance, calculate the annual percentage of xToken sold on Uniswap, and calculate the difference between the uninsured rate of return and the insurance rate of return. This part is the profit that users are willing to give up for insurance.

-----NFT

Moment of glory

The limited edition collectible NFT is a digital collection promotion for AACE holders

Limited edition prints with a total of 500 coins.

Shining with diamond-like light, the light and dreams of the community.

Just hold 20 AACE tokens for 60 days to get an exclusive NFT. Then you can only use AACE to buy it if you don't meet the qualifications. It will be the beginning of glory for holding NFT. Please look forward to more details.

In 2012, Scott Nadal and Sunny King proposed a PoS proof of stake in a paper. As an alternative to Satoshi Nakamoto's proof of work, Peercoin, the first to incorporate the PoS concept into the consensus mechanism, was launched in the same year. In the following years, some large blockchain projects such as Ethereum and Cosmos have proposed their own PoS solutions. But today, seven years later, the mainnet adopts PoS consensus (not including DPoS, PoW+PoS hybrid consensus) blockchain projects in terms of quantity and market value scale, lagging behind projects that adopt PoW consensus. Why is the progress of the new PoS project still not as good as expected based on the existing mature projects? Does PoS consensus have enough advantages to allow people to accept it and have a place in the blockchain consensus field? Is "StakingEconomy" the new development direction of blockchain in the future?

The early PoS consensus faced a crisis of easy forks. Professor Harding described a story in the article "Tragedy of the commons": Some shepherds graze on a public grassland. Because the resources of the grassland are limited, when the number of sheep exceeds the grassland can After carrying the maximum number, the total output value of the flock will decrease. Consider a simple model composed of two shepherds. Suppose that the reasonable grazing amount on the grassland is two, and the two shepherds each have one sheep. At this time, the output value of each sheep is 1 unit, and for every additional sheep, The total output value of the flock will decrease. Every shepherd faces two choices: add a sheep or maintain the status quo. If the shepherds are rational, adding a sheep will be the optimal strategy. However, when both shepherds choose to add a sheep, the total output value of the grassland drops. The implication of the "tragedy of the commons" is that the unrestrained development and utilization of public resources by individuals will damage the overall interests.

The early PoS consensus also faced a similar problem, that is, "rational bifurcation". In a "chain"-based blockchain network, when a node finds two blocks of the same height, that is, when the network is forked, the node faces two choices: 1. According to the consensus rules, choose one of the nodes as On the main chain, new blocks are produced on this basis; second, new blocks are produced on the two fork chains at the same time.

In the PoS consensus that includes the Slasher protocol, malicious nodes launching an attack will not only lose possible interest income, but also lose the mortgage deposit. The meaning of a block being confirmed by N% is: if the block does not become the final consensus, then the verifier will lose N% of the total network collateral. Assuming that in the PoS consensus blockchain, the attacker wants to launch a similar attack, then he needs to mortgage a certain percentage of the tokens, which varies with the specific consensus algorithm. In the “chain”-based PoS consensus, it is generally necessary to mortgage 51% of the total number of tokens to launch a similar attack. The cost of the attack is the same number of tokens and a relatively small loss of interest income. It is also difficult to obtain 51% of the circulation tokens. On the one hand, if the tokens are purchased through the secondary market, then large-scale acquisitions will inevitably push up the price and increase the attack cost of the attacker; on the other hand, there are already a considerable number of tokens in the mortgage lock-up period. From this perspective, PoS proof of equity can guarantee that it is no weaker than the "economic security" of proof of work when the initial distribution is reasonable. In addition, the reason for the high fees of Ethereum and the slow tps is that we are considering the idea of developing our own main chain in the future to completely change the current serious problems.

We will not do too much explanation about Balance Chain in this version V1. To learn more, we need to find in our V2 version.

Part 3: Balance. Finance Tokenomics

To achieve better future development in the balance. finance ecosystem, incentive policies are particularly important. Tokens are the internal combustion engine for project development. Only with sufficient fuel can the community become more potential. Make the ecology fairer and more transparent. We will distribute most of the tokens to the community to prevent the existence of whales, thereby making the tokens more scarce and precious. This is why the total circulation is so small.

Name: Balance.Finance **Symbol:** AACE **Total Supply:** 20, 000

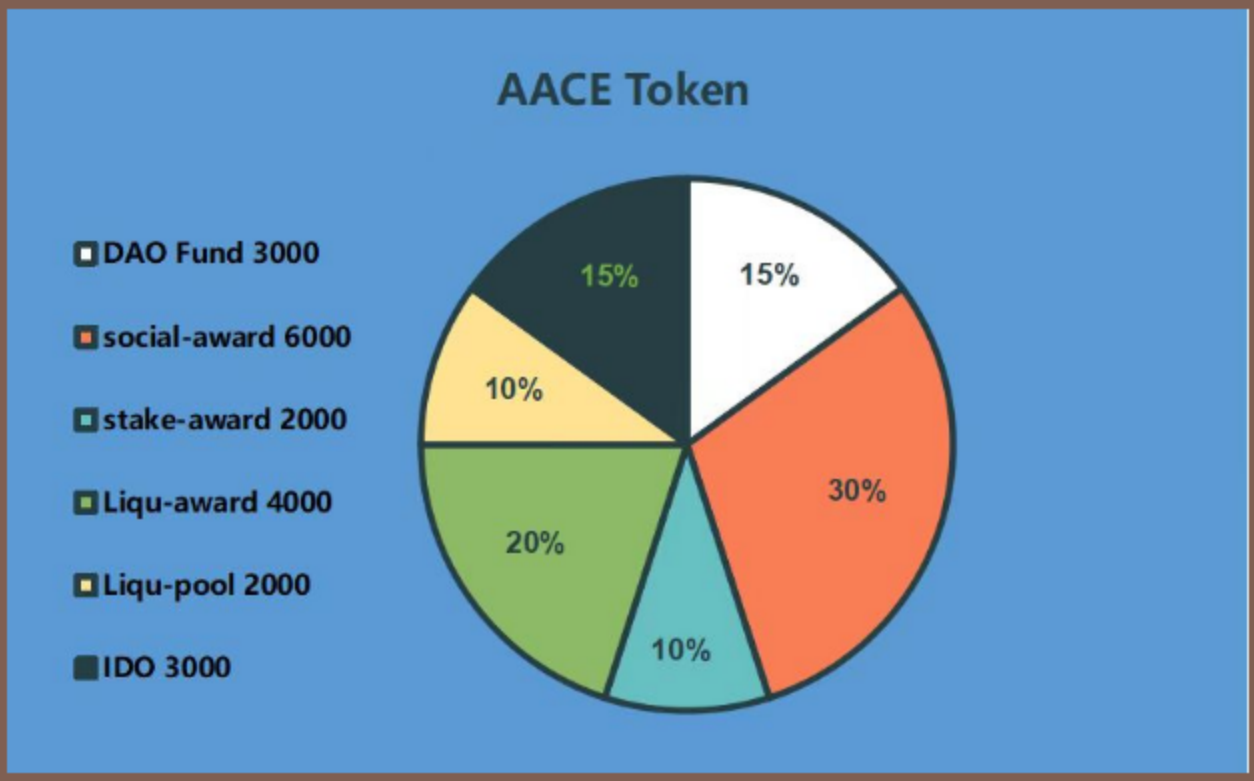
IDO: amount that was sold during the private at 15%: 3, 000

DAO: Locked and vested on a monthly basis contract for a period for 24 months commonly at 15%.: 3, 000

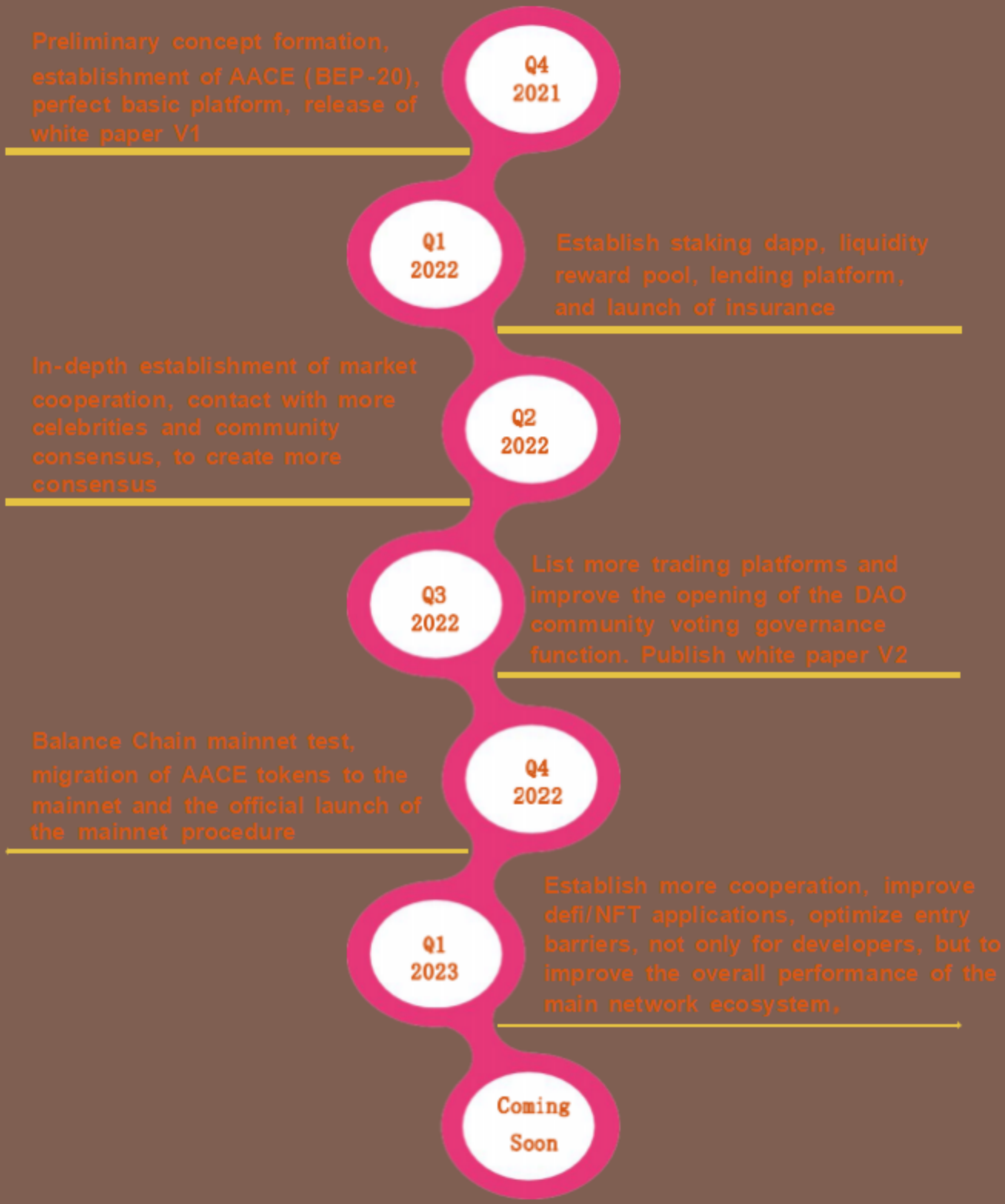
Stake-Pool: For scarcity, this will be a decision to maximize the interests of the community at 10%: 2, 000

Liqu-Pool: A percentage of the tokens will be added to cake- pool 10%: 2, 000

Liqu-Award 20%: 4, 000 Social Award 30%: 6, 000



Part 4: Balance. Finance Roadmap



references

Bagnall, E. (2019, June 30). Top 1000 World Banks 2019 – The Banker International Press Release – for immediate release. Retrieved February 20, 2020, from https://www.thebanker.com/Top-1000-World- Banks/Top- 1000-World-Banks-2019-The-Banker-International- Press- Release- for- immediate- release

Boehlke, J. (2019, September 18). How Long Does It Take to Have a Payment Post Online to Your Bank? Retrieved February 20, 2020, from https:// www .gobankingrates.com/banking/checking-account/how-long- payment-posted- online-account/

Demirguc-Kunt, A., Klapper, L., Singer, D., Ansar, S., Hess, J. (2018). The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution. https://doi.org/10.1596/978-1-4648-1259-0_ch2

How long does an Ethereum transaction really take? (2019, September 25). Retrieved February 20, 2020, from https://ethgasstation.info/blog/ethereum-transaction-how-long/

International Wire Transfers. (n.d.). Retrieved February 20, 2020, from

https://www .bankofamerica.com/foreign-exchange/wire-transfer.go

Karlan, D., Ratan, A. L., & Zinman, J. (2014, March). Savings by and for the poor: a research review and agenda. Retrieved February 20, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4358152/

Stably. (2019, September 20). Decentralized Finance vs. Traditional Finance: What You Need To Know. Retrieved from https:// medium.com/stably-blog/decentralized-finance-vs-traditional-finance-what-you-need-to-know-3b57aed7a0c2

Campbell, L. (2020, January 6). DeFi Market Report for 2019 - Summary of DeFi Growth in 2019. Retrieved from https://defirate.com/market- report-2019/

Mitra, R. (n.d.). DeFi Use cases: The Best Examples of Decentralised Finance. Retrieved from https://blockgeeks.com/guides/defi-use-cases- the-best-examples-of-decentralised-finance/#_Tool_2_DeFi_Derivatives

Shawdagor, J. (2020, February 23). Sectors Realizing the Full Potential of DeFi Protocols In 2020. Retrieved from https://cointelegraph.com/news/sectors-realizing-the-full-potential-of- defi-protocols-in-2020

Thompson, P. (2020, January 5). Most Significant Hacks of 2019 - New Record of Twelve in One Year. Retrieved February 20, 2020, from https://cointelegraph.com/news/most-significant-hacks-of-2019-new- record-of-twelve-in-one-year

The Editors of Encyclopaedia Britannica. (2020, February 26). Bernie Madoff. Retrieved from https://www.britannica.com/biography/Bernie- Madoff

Frequently Asked Questions on TokenSets. (n.d.). Retrieved from