GREAT Project: WUSD Stablecoin Platform

Whitepaper

Extract	
Chapter 1 System Overview	3
Chapter 2 Collateralization System. Creating CDP Closing CDP Maintaining CDP Parameter specification.	
Chapter 3 Stability Mechanism. Clearing mechanism. Risk Reserve Funding Pool. Emergency Shutdown. Supply-demand regulating.	
Chapter 4 Community Governance Voting governance	10
Chapter 5 Price Feeding	
Chapter 6 Public Chain Ecosystem Public chain ecosystem & stablecoin	
Chapter 7 Main Risk and Response Plan. Market fluctuation. Improper governance. Price feeding error. Lack of usability.	
Conclusion	15

Extract

The stablecoin has appeared in the cryptocurrency market since 2014, with several stablecoin projects launched, such as USDT.

In the second half of 2017, represented by Bitcoin, a bull market of cryptocurrencies stimulated the demand and drove incremental users into the market. After the issuance of 94 policy in China, the direct transaction between fiat currencies and cryptocurrencies has been restricted. A medium is in demand to undertake pricing function instead of the fiat currency. Hence, the stablecoin has been brought to the front and gradually emerged in the market.

The USDT has been dominated in the market with support from two major exchanges Bittrex and Poloniex. Since the second half of 2018, projects such as PAX, GUSD, TUSD has been intensively appearing in the market and taken some market share, with the improvement regarding the problem that lack of transparency and regulation of USDT. However, stablecoins of the same type with USDT are restricted to latecomer disadvantages; different types of stablecoins (such as MakerDao, BitCNY, etc.) have opened up new markets, though, are limited to the relatively small market space during the early stage of the blockchain industry. Therefore, in the short term, USDT will still occupy a leading position in the stablecoin market.

Stablecoins projects can generally be divided in to two main categories according to their collateral: 1:1 fiat collateralized and cryptocurrency over-collateralized. Different types of stablecoins have their own focus on different market segments in application.

At present, serving as exchange currencies with function of valuation is still the major application scenario for stablecoins. However, the stablecoin has very limited circulation in other application scenarios, subject to two reasons:

- 1. For fiat collateralized stablecoins such as USDT, the collateral is not actually exist on blockchain. It is difficult to supervise the transparency of this type of stablecoins, which results in certain crisis of confidence.
- Currently, the mainstream digital asset collateralized stablecoins (such as DAI) are issued
 on the public chain of the POW consensus mechanism, which results in the limited
 efficiency of the stablecoins circulation. Those stablecoins have difficulties to circulate in
 more high-frequency scenes.

The current marketplace demands a decentralized asset-backed stablecoin with stable value, efficient circulation and transparency mechanism, to support more comprehensive application scenarios. Without willingness to invest, the masses other than blockchain investors are more likely to accept stablecoins considering its relatively constant value to pay for products and services on blockchain. Therefore, WUSD can well target at the niche market and stand out among other stablecoins.

As a cryptocurrency collateralized stablecoin based on WaykiChain public chain ecology, WUSD hopes to better face the challenges and contribute to the development of the public chain industry, as well as blockchain industry.

Chapter 1 System Overview

Stablecoin concept

In the early stage, WUSD is the stablecoin collateralized with cryptocurrency BTC, ETH, WICC as its value base. It is pegged to USD. Later WUSD will be open to accept other cryptocurrencies as collateral.

Any BTC, ETH and WICC holder can obtain a proportional amount of WUSD by pledging WICC to CDP (Collaterized Debt Position), and the amount depends on the collateralization rate chosen by the users. Collateralization rate is the ratio between the value of WICC assets and the value of WUSD obtained. Over-collateralization is used in the system rules, which means that the Pledgor must pay WICC more than the value of WUSD to complete the transaction.

There are two ways to destroy WUSD. First, the Pledgor redeems the asset by sending WUSD and the incurred stable fees to the normal CDP (the collateralization rate is greater than 150%). Second, the system will perform mandatory clearing rules to close the abnormal CDP (with collateralization rate less than 150%). The system immediately destroys the received WUSD either way.

In order to maintain the stability of the value of the stablecoin, the system must ensure that there is enough decentralized asset as collateral behind each issued WUSD to endorse it. Therefore, a clearing system is introduced to liquidate CDPs that are insolvent. A risk reserve

is also prepared to cope with the potential fluctuations on cryptocurrency caused by the black swan event.

To ensure the sound operation of the system, a governance coin WGRT is introduced to the system. WGRT holders share the benefits of stable fees and fines during the operation of the system, as well as the obligation to govern and resist financial risks. In terms of the liquidity of the stablecoin, the various applications on WaykiChain and third-party cooperation will create continuously expanding demand for WUSD, and reciprocally stimulate the development of WICC.

System Participants

Price feeder: The group provides the prices of WICC, BTC, ETH and WGRT in the secondary market for the stablecoin system. Price feeders are the super nodes of WaykiChain, with requirements to lock up a certain amount of WICC.

Pledgor: Users who pledge asset into CDPs. They can collateralize cryptocurrency to obtain WUSD, to meet their need such as purchasing in DAPP, leveraging cryptocurrency or other financial needs, and more importantly, obtains additional liquidity without transferring the ownership of the collateral assets.

Governor: WGRT holders. Obtain corresponding rights, responsibilities and obligations in the system.

Liquidator: Users involved in clearing abnormal CDPs under clearing mechanism. Liquidators can be anyone in the market, as long as they have WUSD, they can participate in liquidation and get profits from the system. For the arbitrage purpose, the Liquidator clears the abnormal CDP and maintains the overall stability of the system.

Underwriter: Pledgors who offer WUSD to others and benefit from it. Underwriters offer services to the users who want to acquire WUSD without collateralization, as well as reverse conversion. Underwriters profit from premiums or service fees in the conversion service. For the purpose of encouraging Underwriters to issue sufficient WUSD for market circulation, the system set the stable fees interest to be negatively correlated with the pledged WUSD amount. The stable fees interest will decrease exponentially with the pledged WUSD amount increases.

Chapter 2 Collateralization System

CDP is used to keep and protect the asset pledged by users. The WUSD collected by the Pledgor from CDP represents the debts owed by the Pledgor. To redeem the pledged asset, the Pledgor has to repay WUSD. Like the collateral practice used in the legal tender system, the amount of debts will be lower than the value of the pledged assets.

The crypto assets that can be pledged at the initial stage is WaykiChain public chain token WICC, following by BTC,ETH. Along with the development of our business, other valuable assets will also be accepted as collateral.

Creating CDP

The Pledgor may initiate a transaction in the stablecoin system, specify the type and quantity of pledged asset, and choose the amount of WUSD that the Pledgor wants to borrow. Upon completion of the transaction, namely completion of CDP, the pledged asset will be locked up in CDP.

Closing CDP

1. Repaying Debts through WUSD

To redeem the pledged asset, the Pledgor shall repay debts in CDP and pay the corresponding stable fees. The stable fees shall be paid through WUSD. The WUSD received in respect of payment of stable fees will be converted into WGRT and eliminated in the decentralized exchange. The debts in CDP will be considered being fully repaid upon the payment of payable WUSD and stable fees to CDP.

2. Automatic Return of Pledged Asset and Closure of CDP

Upon full payment of debts and stable fees, and choose to return all of the collateral, CDP will be closed thereafter.

Maintaining CDP

Each address only corresponds to only one CDP. After the Pledgor creates CDP, the Pledgor may continue to borrow from CDP, pledge additional asset, redeem pledged asset by stage or repay debts by stage as long as CDP is not closed.

No additional pledged asset required

The Pledgor can borrow additional WUSD without pledging additional asset only when the collateralization ratio exceeds 200%, and the Pledgor shall ensure that the collateralization ratio after the foregoing borrowing remains no less than 200%.

- Additional pledged asset required
- 1) The Pledgor may pledge additional asset in CDP in order to increase the collateralization ratio;
- 2) If the collateralization ratio is no more than 200%, the Pledgor shall pledge additional asset in CDP if he or she wants to borrow additional WUSD. In addition, the additionally pledged asset's value shall be at least twice of the additional WUSD that the Pledgor intends to borrow.
- 3) If the collateralization ratio is more than 200%, the Pledgor can also pledge additional asset in CDP, and borrow WUSD on the condition that the collateralization ratio after the borrowing shall be at least 200%.
- Redeeming Pledged Asset/Repaying Debts by Stages

The Pledgor may redeem part of pledged asset by repaying WUSD, provided that the collateralization ratio after such redemption and repayment of WUSD shall be at least 200%.

The Pledgor may repay WUSD and refrain from regaining pledged asset, so as to increase the collateralization ratio.

All the above maintenance or closure of CDP shall entail stable fees that correspond to the CDP in question.

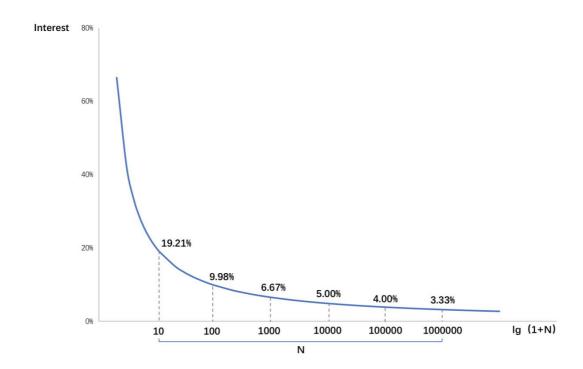
Parameter specification

When pledging or redeeming assets, the Pledgor shall know the following key parameters set in the system:

1) The minimum collateralization ratio = 200%. For instance, the Pledgor can borrow \$50 worth of stablecoins on every \$100 crypto assets that are pledged.

- 2) No upper limit is set for the collateralization ratio.
- 3) Interest rate for stable fees = a/lg (1+bN) . In the formula, a and b are constants, and N represents WUSD borrowed by the Pledgor. Such interest rate is annualized rate, and changes as an exponent. The more WUSD the Pledgor borrows, the lower such interest rate will be. The initial values set in the system: a=0.2, b=1.

Stable fees Interest Rate



4) The upper limit for total quantity of pledged asset = WICC quantity *25%. This indicates that there is an upper limit for total WUSD that can be issued by the entire CDP system, which means the ceiling of debts.

Chapter 3 Stability Mechanism

With the volatility in crypto price, the values of collateral assets in the stablecoin systems fluctuates all the time, as well as the collateralization rate. The system will perceive the collateralization rates related to all CDPs in real time. When the collateralization rate falls to 150% or below (the particular 150% collateralization rate is called the liquidation rate), CDPs are defined by the system to be in abnormal state and vice versa, to be in security state. In

order to guarantee that there are enough assets behind each issued WUSD to endorse it, abnormal CDPs need to be liquidated in time.

Clearing mechanism

The normal CDP only belongs to the Pledgor, and only the Pledgor can redeem it. The abnormal CDP will enter the compulsory liquidation pool, and anyone can initiate liquidation. At this time, the Pledgor can still redeem his abnormal CDP in the redemption interface; thus, abnormal CDPs can be closed by redemption or by liquidation.

The liquidated CDP does not incur any interest, but a 13% penalty each time. In addition, in order to complete the liquidation as soon as possible, the liquidated assets will be sold to the Liquidator at a discount of 97%. According to different collateralization rates, there will be three theoretical scenarios in liquidation:

■ The collateralization rate is within 113%~150%

The collateral assets valued 113% of the loan WUSD will be sold to the Liquidator, who will pay back the system, so this part of collateral assets can be obtained by the Liquidator. In that case, WUSD of the loan value will be destroyed. And for the remaining portion, 50% will be put into the Risk Reserve Funding Pool, and other 50% will be used to buy WGRT on a decentralized Exchange, and then self-destruct. Unsold collateral assets are going to be returned to the Pledgor.

■ The mortgage rate is within 104%~113%

All of the collateral assets will be sold to the Liquidator and no remaining assets will be returned to the Pledgor. The WUSD provided by the Liquidator to the system also meets the liquidation demand of CDP first, and the remaining part is exchanged into WGRT, and then be destroyed. The difference is that the actual penalty rate is between 4% -13%.

• The mortgage rate is within $0\%\sim104\%$

The system will use WUSD in the Risk Reserve Funding Pool to close out the insolvent CDP. Then the assets released by the CDP are converted into WUSD in the decentralized exchange. Meanwhile, additional WGRT will be issued to be converted into WUSD in the decentralized Exchange (the amount of additional issue is subject to the insolvency fund gap of current CDP). After the completion of transaction, both parts of WUSD will be returned to the Risk Reserve Funding Pool.

Risk Reserve Funding Pool

The systemic risk is that the volatility of collateral asset prices may lead to the insolvency of abnormal CDP, thus, the risk defense mechanism is essential. During liquidation, the Liquidator mechanism is the first risk defense of the system, and Risk Reserve Funding Pool is the second defense. The WUSD stored in the Risk Reserve Fund mainly sources from two parts: 1)The assets raised from the issuance of WGRT will be exchanged for risk reserves; 2) When the system has been liquidated, a portion of the penalty will be put into Risk Reserve Funding Pool.

Emergency Shutdown

When the market encounters Black Swan Events, it may cause the assets value depreciates under the obligation value.

When the overall collateralization rate (the total value of collateral WICC in all CDPs / the total value of WUSD in the market) falls below 80%, the automatic protection mechanism will be turned on by the system to suspend all operations related to CDP. After the market stabilizes or rebounds, the community can initiate a restart proposal.

Supply-demand regulating

In the system, the price of WUSD is hard pegged to 1 USD, while in the secondary market, it will be soft pegged to USD due to the change in supply and demand.

Therefore, besides using the clearing mechanism and the risk reserve to ensure the collateral assets value over the value of issued stablecoins, it is also necessary to respond to the price fluctuation of the WUSD in the secondary market.

If the WUSD values over 1 USD in long term, theoretically, market arbitrage behavior can make the price callback. However, the arbitrage path is long and there is additional risk of fluctuations in assets value. Therefore, the effect of market self-regulation is difficult to forecast accurately. If market behavior does not work for a long time, it is necessary for the Governor to play a governance role. For instance, lowering interest rate, and encourage Pledgors to largely issue WUSD.

If the WUSD values under 1 USD in long term, the Liquidator can hoard the WUSD for use in liquidation to optimize the profitability. If market behavior does not play a good role, the

Governor is also needed to play a governance role, such as raising the stable fees rate and actively expanding the application needs.

Chapter 4 Community Governance

To receive stable fees and penalties, the Governor is playing a key role in the stablecoin system and maintaining the stable operation of the system. WGRT is the governance coin of WUSD, and the user holding WGRT is the Governor of the system. The super nodes will control parameters of systems and may even change the operational rules of systems.

Unlike other stablecoins in terms of smart contracts, WUSD is the underlying public chain stablecoin, which is an integral part of the WaykiChain ecosystem. To ensure the economic connection between WICC Governors and WGRT Governors, participants vote in the super nodes election of WaykiChain will receive a reward of WGRT. It demonstrates that the super nodes of WaykiChain play important roles in stablecoin system.

Any Governor that meets the system rules can submit a proposal. Whether or not such proposal shall be passed and put into practice will be decided by voting.

Voting governance

All WGRT holders can participate in governance of the entire stablecoin system. Qualified proposals will be submitted for voting, and all WGRT holders can vote to determine whether or not such proposals shall be passed and implemented. Proposals are mainly about setting operational parameters of the system, such as interest rate and penalties.

1. Submitting proposals

Any WGRT holder can submit proposals. A submitted proposal can only become a qualified one when applicable WGRT locking-up requirement is satisfied.

 Qualified proposal – a proposal that corresponds to at least 210,000 locked-up WGRT in the voting system will directly become a qualified proposal and be voted on thereafter.

2. Voting process

A qualified proposal will have a voting period of one week. During the period, WGRT holders may vote on the proposal, with one coin representing one vote. Holders will have three options, namely "Agree", "Disagree" and "Abstain".

3. Confirming voting results

A qualified proposal needs to satisfy the following conditions before being recognized by system and becoming effective:

- Over 20% circulating WGRT has voted
- Excluding those who have abstained, over 60% of voters chose to "agree"

If either of the above conditions is not satisfied, the proposal in question will not be passed. 10% of the WGRT pledged by the user whose proposal is not passed will be included into the "voting incentive pool", and the remainder will be returned to the original holder. If the proposal is passed, all locked-up WGRT will be returned to the original holder and all remainder funds in the "voting incentive pool", if any, will be rewarded to the user who submits such passed proposal based on the ratio of "Voting WGRT/All circulating WGRT".

4. Implementing the passed proposal

The passed proposal will be implemented immediately. The system will immediately start to operate according to the newly passed proposal.

WGRT (Governance Coin)

WGRT is the abbreviation of governance coin. It also represents WaykiChain Great. The W represents WaykiChain, G refers to Governance. R refers to Right. T refers to Treasure.

WGRT acts as a regulator in the system. When the stablecoin system functions regularly, the system will purchase WGRT from the market, to repurchase and destroy the interest incurs from generating WUSD and the penalty from CDP liquidation. Therefore, WGRT will continue to deflate in long-term operation.

In Black Swan Event, if the value of a collateral asset falls dramatically, causing part of CDPs to enter insolvent state without liquidation (theoretically refers to a collateralization rate less than 100%, but no greater than 104% in practice), the system will use the Risk Reserve to resolve the insolvency and close the CDP, as well as issuing new WGRT to

purchase WUSD from the market for repaying the Risk Reserve (the amount of additional issue is subject to the insolvency) .

The total amount of WGRT issued is 21 billion, with the initial face value of \$0.01 USD. 30% for instituition subscription through private placement, partial lockup position in accordance with aggreement. 15% is reserved for the development team, and will be lockup for a maximum of 5 years. 15% for strategic reserve deployment, which is used for large scale strategic resource exchange with the lockup duration more than 3 years, and the rest is held by the foundation for a maximum of 5 years. 20% for the budget for DeFi marketing campaign project, and will be all airdropped to users of popular currencies such as BTC, ETH, HT, BNB and others as community resource swaps, or to reward participants by holding offline events, all airdrop tokens can be lockup to 6 years. 10% for distribution through WaykiChain's super node voting rewards, and 10% will be airdropped to WaykiChain's currency holders and lockup users. Super node voting rewards and airdrop users can lockup for up to 6 years. The lockup duration can be adjusted according to the specific project progress and market conditions, and WGRT holders use partial non-lockup position to initiate a vote to adjust, and the adjustment results will be publicly announced by the community.

Chapter 5 Price Feeding

All the processes of pledging, redeeming and liquidating involve value determination and conversion, and in such processes the system needs to know each token's prices. The process of recognizing prices is called "Price Feeding".

The system will use the median of quotes of every price feeder as the system price, which will impact operations including pledging, liquidation and redemption. The fed price will be the weighted average of those in all major centers and decentralized exchanges, and the weightings will depend on the distribution and trading liquidity of WICC.

Price feeder

Price feeder refers to the user feeding prices for the stablecoin system. The super node of WaykiChain that locks up 2,100,000 WGRT in the system can become a price feeder for the system.

Chapter 6 Public Chain Ecosystem

Public chain ecosystem & stablecoin

Each WUSD is backed by encrypted asset that has much larger value than such WUSD. Such arrangement will ensure stability of WUSD. The growing volume of WUSD will push up value of the corresponding pledged asset.

The circulating volume of WUSD depends on the scenarios and scale of its use. At the initial stage, the use scenarios mainly involve the following three aspects:

- Decentralized financial system's demand for WUSD, such as using WUSD in asset financing or using it as the basic charge unit in decentralized exchanges
- Using WUSD as a bridge to provide more convenient and safer financial instrument for users, such as decentralized exchanges' access to legal tender financial system
- Using WUSD as the infrastructure to provide better trading and payment experiences for DApp on public chain

The stablecoin can boost value of pledged assets, create a good use scenario for public chain and help the public chain ecosystem reach more users.

The public chain's inherent advantages and disadvantages will also impact the experiences of stablecoin system developed by it.

Chapter 7 Main Risk and Response Plan

Any system's development and operation face risks. It's necessary and important to let the original designers and developers govern the communities, understand the risks and set related rules to minimize risks or their damages.

Market fluctuation

A steep decline in value of the pledged assets for WUSD or a black swan can fully suspend the stablecoin system, and endanger the pledged asset.

Response plan:

"Debt ceiling" will be set so as to allow only part of the total pledged asset to flow into the stablecoin system. Such arrangement can prevent massive liquidation activities from causing a further decline in value of pledged asset. The governing community will set the "debt ceiling" according to actual operational conditions.

Improper governance

The stablecoin system is governed by community where all WGRT holders can take part in decision making. Based on the voting rules, those who hold more WGRT will have more say.

In addition, super nodes are not necessarily experts. Most of holders may not have the economics or technological backgrounds required for making sound votes to sustain the system, so they may make mistakes.

Response plan:

The mechanism design of the whole system constitutes a strong relevance between WICC and WGRT. Thus, entities holding WGRT will be the most relevant parties to the interests of WICC. In theory, super nodes have no evil motives, because the damage to the stablecoin system is also hurting the overall interests of itself.

Therefore, the rules will ensure each role's rights correspond to obligations so as to prevent wrongdoings inside the community.

In the early stage, WaykiChain team will provide detailed knowledge about the stablecoin system, and work with the community to better transmit such knowledge.

Price feeding error

Pricing feeding will be a key process and any error can impact the system's stability and jeopardize user's interests.

Response plan:

The system price is determined through a "median price" system, so a few price feeders' errors in price feeding or failure to feed prices will not impact the accuracy of prices.

Lack of usability

The stablecoin system is decentralized and has a complicated mechanism, so maybe only a few users can understand the system and the perception that decentralization causes bad experiences may impede expansion of user base.

Response plan:

WaykiChain public chain has made breakthroughs in performance and been an industry leader. In short-to-medium term, the public chain can support smooth operation of the stablecoin system. Moreover, the product presentation and operation will be made as simple and easy as possible.

Ordinary users that do not understand the mechanism behind WUSD can still use WUSD easily. For users who have more demands, our team and the community will help them understand the system's mechanism in various ways; users or institutions with industrial backgrounds are well equipped to understand the system.

Conclusion

Stablecoin WUSD is a transparent and stable economic activity that aims to support the development of public chain ecosystem and the entire blockchain sector. It can even promote a more efficient and fair value circulation in other sectors. The team and community will continuously upgrade and improve the system. We expect WUSD to be used in more diversified scenarios with better risk control, governance and user experiences, so as to gradually achieve the foregoing long-term goals.

Disclaimer: The whitepaper only depicts the phase one planning of WUSD. Any necessary system upgrade hereafter will be announced in the community and implemented after the voting (if passed).