UnUniFi

~Synthetic Assets pegged to JPY, EUR, index of tokens, etc. on Cosmos Network~

Yu Kimura Takeru Shimojima

December 2021

Abstract

UnUniFi Protocol is a decentralized finance(DeFi) platform that provides tools and features that allow users to create a collateralized deposit position, like that of MakerDAO, to synthesize a number of assets pegged to legal currency, real-life assets, like stocks or commodities, crypto assets, and index of tokens, etc. The mission is "Connect, decentralize, and activate the liquidity of various markets".

There are many stablecoins in existence, but most of them are centralized and subject to regulation. The value proposition of the stablecoins proposed in this protocol is that they are crypto-backed stablecoins, decentralized, multi-collateralized, and scalable. In addition to issuing stablecoins, this protocol will issue synthetic assets pegged to the index of tokens on GameFi and Metaverse, which have been heating up recently. The UnUniFi Protocol aims to expand the size of the market by introducing a new investment approach to the existing crypto asset market, and the blockchain itself aims to be decentralized based on principles.

1. Introduction

1.1 Problems faced by cryptocurrency

Most cryptocurrencies, including Bitcoin, have a predetermined issuance schedule that, together with a strong speculative demand, contributes to wild fluctuations in price. Bitcoin's extreme price volatility is a major roadblock towards its adoption as a medium of exchange or store of value. Intuitively, no one wants to pay with a currency that has the potential to double in value in a few days, or wants to be paid in a currency if its value can significantly decline before the transaction is settled. The problems are aggravated when the transaction requires more time, e.g. for deferred payments such as mortgages or employment contracts, as volatility would severely disadvantage one side of the contract, making the usage of existing digital currencies in these settings prohibitively expensive. This is where the demand for stablecoins was born.

1.2 Problems faced by stablecoins designed to achieve the current stable price

A stablecoin is a cryptocurrency token which has its value at a 1:1 ratio; pegged to a stable asset. Usually, they are pegged to an asset such as gold or a fiat currency like the US dollar. The fundamental concept of a stablecoin is to hold the stability of its pegged value while maintaining its reputation as a cryptocurrency. It holds the best aspects of the cryptocurrency market but leaves the volatility behind.

There are three main types of stablecoins designed to achieve stable prices on the blockchain: (i) fiat-backed stablecoins, (ii) crypto-backed stablecoins which are backed by cryptocurrencies such as

ETH, and (iii) non-collateralized stablecoins. Many legal fiat-backed stablecoins are coming to market, but they have some problems. USDT, issued by the U.S. company Tether, is a typical example of a legal tender-backed stablecoin, but there is a risk that the issuing company may misuse the assets (such as dollars) that serve as collateral. In addition, fiat-backed stablecoins are susceptible to regulation by various countries. Non-collateralized stablecoins will only work if the demand for stablecoins increases in the long term. The most reasonably likely to scale at this point are crypto-backed stablecoins.

1.3 The rise of Decentralized Finance(DeFi)

DeFi is short for "Decentralized Finance", a generalized umbrella term used to describe a variety of cryptocurrency and blockchain-based financial applications geared towards disrupting legacy financial institutions. DeFi is not reliant on central financial intermediaries such as brokerages, exchanges, or banks to offer users access to traditional financial instruments, and instead utilizes smart contract-based applications that are built on top of existing blockchain-based platforms. With regard to DeFi, there is a growing movement to make finance smoother with ideas such as not only exchanging tokens, but also realizing existing financial products (such as corporate stocks) on the blockchain.

1.4 Heated markets where crypto assets are handled, such as GameFi and Metaverse

GameFi, one of the hottest buzzwords in the cryptoverse, is a portmanteau of "Game" and "Finance." It describes the gamification of financial systems to create profit from playing play-to-earn crypto games. A Metaverse is a digital space represented by digital representations of people, places, and things. In other words, it's a "digital world" with real people represented by digital objects. In GameFi and Metaverse, tokens are created for a variety of purposes. It is expected that tokens on GameFi and Metaverse will become even more overheated in the future.

2. Synthetic assets on UnUniFi Protocol

The UnUniFi Protocol is a decentralized finance(DeFi) platform that provides tools and features that allow users to create a collateralized deposit position, like that of MakerDao, to synthesize a number of assets pegged to legal currency, real-life assets, like stocks or commodities, crypto assets, and index of tokens, etc.. Trading can be done by any person anywhere in the world, so the entry barrier is lowered to accommodate easy access to the financial market. Thanks to the technology used by the UnUniFi Protocol, users can manage and trade tokenized assets by creating synthetic assets without ever owning the actual stock or commodity they represent.

Advantages of crypto synthetic assets vs. traditional derivatives:

Traditional derivatives were once groundbreaking in their ability to unlock additional value from assets like equities. However, crypto synthetic assets are taking liquidity access to a whole new level. Here are just a few advantages synthetic assets have over traditional derivatives:

Anyone can issue them: Blockchain-based synthetic assets can be minted by anyone using the UnUniFi Protocols.

Worldwide liquidity: Synthetics can be traded on any crypto exchange in the world, including unstoppable decentralized exchanges.

Borderless transfers: Synthetic assets are blockchain assets; you can send and receive them between cryptocurrency wallets.

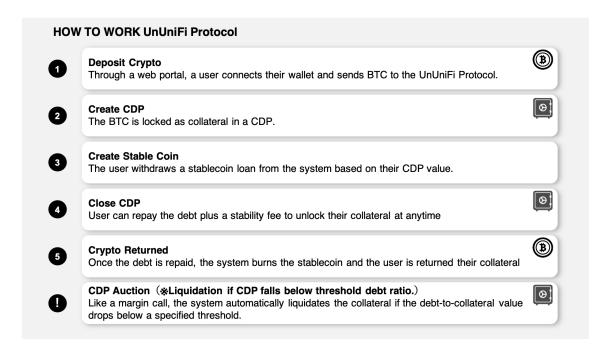
Frictionless movement: Switch between equities, synthetic silver/gold, and other assets without having to hold the underlying asset.

Generally speaking, synthetic assets enable far more liquidity across global exchanges, swap protocols, and wallets than traditional derivatives are even remotely capable of. Synthetic assets make tokenizing and trading anything a reality. By enabling anything to be tokenized and brought onto the blockchain, synthetic assets unlock untold pools of global liquidity. Apart from simple market buying/selling and derivatives trading, synthetic assets create possibilities for seemingly infinite markets and combinations for new sources of value.

The UnUniFi Protocol will allow users to smoothly generate and trade a variety of Synthetic assets on the blockchain. The UnUniFi will issue stablecoins pegged to JPY, EUR, or especially index tokens on GameFi and Metaverse, which has yet to be realized by any protocol. This will enable the world to develop a new kind of finance that goes beyond existing finance and will contribute to further boosting the heated GameFi and Metaverse markets.

3. What is JPU or EUU?

JPU or EUU is a digital asset drawn from the UnUniFi Protocol on Cosmos Network. The price of JPU or EUU are nearly equal to that of JPY or EUR. A user can supply BTC or other cryptocurrencies to UnUniFi Protocol, borrow JPU or EUU, and exchange that JPU or EUU for other assets, goods, or services. Once the JPU or EUU is repaid to the UnUniFi Protocol, the user regains full access to their supplied BTC.



4. What is Cosmos Network?

Cosmos is a network of independent parallel blockchains that are each powered by classical BFT consensus algorithms like Tendermint 1.

The first blockchain in this network will be the Cosmos Hub. The Cosmos Hub connects to many other blockchains (or zones) via a novel inter-blockchain communication protocol. The Cosmos Hub tracks numerous token types and keeps record of the total number of tokens in each connected zone. Tokens can be transferred from one zone to another securely and quickly without the need for a liquid exchange between zones, because all inter-zone coin transfers go through the Cosmos Hub.

This architecture solves many problems that the blockchain space faces today, such as application interoperability, scalability, and seamless upgradability. For example, zones derived from Bitcoind, Go-Ethereum, CryptoNote, ZCash, or any blockchain system can be plugged into the Cosmos Hub. These zones allow Cosmos to scale infinitely to meet global transaction demand. Zones are also a great fit for a distributed exchange, which will be supported as well.

Cosmos is not just a single distributed ledger, and the Cosmos Hub isn't a walled garden or the center of its universe. Cosmos Communities are designing a protocol for an open network of distributed ledgers that can serve as a new foundation for future financial systems, based on principles of cryptography, sound economics, consensus theory, transparency, and accountability.

5. How to stable JPU, EUU

*The following is an only description of JPU, but EUU is also issued on the same protocol, so the mechanism is the same.

There is nothing in the JPU digital asset design that in and of itself guarantees trading in a market around 1 JPY, or in a stable range. The price and volatility of a market is a function of the ratio of supply and demand for an asset in that market; the JPU asset design can influence the price in the market by adjusting the ratio of supply and demand for that asset, but only indirectly. JPU stability in markets is not a strictly necessary condition for a moderate level of success in terms of market engagement. Indeed, there are assets on the market today with supposed stability mechanisms whose price action is anything but stable, yet still drive high levels of engagement. Endeavoring for a specific JPU price and volatility level are not themselves a goal, they are a means. Using the OKR framework for project goal setting, an objective of the JPU asset may be to be the most used "stable asset" in the crypto industry. To achieve that level of usage and growth, minimizing JPU price volatility and deviation from ¥1 are arguably the most important key results to measure. It's a subtle but useful point, that while JPU stability around ¥1 is likely an important part of its success, it is not strictly necessary. The price and stability of JPU or EUU does not affect your ability to repay the principal you borrow on the UnUniFi Protocol. This is because your principal is denominated in JPU and not in any other asset. For example, if you borrow ¥100 from the supplied BTC and no borrowing APY is set, you will be able to repay \(\frac{1}{2}\)100 and have full access to the supplied BTC, even if JPU is trading at \(\frac{1}{2}\)0.50 or \(\frac{1}{2}\)1.50. The price of JPU will be affected if there is a surplus of JPU to be raised from the valued borrowed APY, if you sell the borrowed JPU (effectively shorting it), or if you buy JPU with other assets (and are now effectively long the asset). Usage makes JPU price stability an important key result for JPU growth. Users who borrowed JPU will be more likely to sell it for what they need, with less risk, for a longer period of time if they are confident that when they buy it back to repay it, the unit price will be about the same as when they sold it. They will be more likely to sell JPU for a longer period of time. Similarly, sourcing JPU as inventory for some profit-generating strategy (purchasing liquidate assets at auction, DeFi yield staking, etc) becomes more appealing as the user's belief in the long term stability of JPU price increases.

JPU Lending Auction Arbitrage:

JPU lending's system assumes JPU is worth \(\pm\)1.00 insofar as its ability to purchase liquidated assets at auction at a rate of 1 JPU equals \(\pm\)1.00 of liquidated assets. Example, if \(\pm\)100.00 of BTC is up for auction, determined by Chainlink Price Oracle reference feeds, then you can purchase the entire \(\pm\)100.00 BTC lot for 100 JPU, whether you purchased that JPU at market for \(\pm\)0.50 or \(\pm\)1.50. This feature presents a price arbitrage opportunity for any JPU valued at less than \(\pm\)1.00.

There are a number of factors which contribute to asset flows in a market. For the JPU digital asset here are a few categories:

Endogenous Variables:

Borrow APY: Borrow APY is the annualized rate at which a user must pay on their borrowed JPU and can be adjusted per asset. We might expect that as Borrow APY for a given asset increases, all else being equal, marginal propensity to borrow JPU from that asset will decrease, thereby increasing demand to source JPU.

JPU Savings Rate: JPU savings rate is the annualized rate at which JPU holders are compensated for sourcing and holding JPU. We might expect that as JPU Savings Rate increases, all else being equal, marginal propensity to source JPU should increase.

JCBN Incentives: JCBN incentives are the amount of JCBN assets compensated to users who borrow JPU with a given asset. We might expect that as JCBN Incentives increase for a given asset, all else being equal, the marginal propensity to borrow JPU will increase, thereby increasing supply onto a given market.

Exogenous Variables:

JPU Downstream Demand: JPU downstream demand is any demand source which compensates JPU holders for taking a specific action. We might expect that as JPU downstream demand increases, all else being equal, the marginal propensity to source JPU should increase.

JPU Speculative Demand: JPU speculative demand is the set of decisions made by JPU market participants to place bets on specific JPU prices, potentially at a specific time. For a given JPU price and time, we might expect that as JPU speculative demand increases, all else being equal, the volatility about that price decreases.

6. Use case

The UnUniFi Protocol has four primary use-cases: Users can generate Synthetic assets, by locking collateral(including JPU, EUU) in a smart contract. Users can trade any Synthetic assets on blockchain. Users may stake JPU or EUU for a yield. When earning interest income, there is a huge demand for using coins with low price volatility as collateral. Users may take out a series of collateralized loans to create synthetic leverage for any supported crypto asset. For instance, it is possible to lock BTC and mint JPU or EUU to buy BTC, hence creating a leveraged long position on BTC. There will be more use cases in the future.

7. What is GUU?

GUU(Governance token of UnUniFi) is a utility token for governance or commission used in the UnUniFi Protocol.

8. GUU token distribution

We absolutely do not do initial coin offerings or token sales. Every token will be distributed in return for your actions like being a validator.

Usage	Percentage of usage / supply
Ecosystem Development	30%
Assignment for validators	30%
Assignment for UnUniFi team	20%

Marketing	9%
Advisor	1%
Assignment for business partners	10%

9. Tokens specifications

Name	Symbol	Denom in blockchain	
GUU	GUU uguu		
JPU	JPU	ujpu	
EUU	EUU	ueuu	

10. GUU specifications

1 11 1	1,000,000,000,000uguu =1,000,000GUU
Inflation rate range	7%~20%

11. Governance specifications

Minimum deposit for voting	1,000,000uguu
	=1GUU

12. Staking specifications

Max validators	100
Bonding denom	uguu

13. Synthetic assets pegged to index of tokens on GameFi or Metaverse

What the UnUniFi specifically wants to do is to enable existing financial methods such as index investment in crypto assets created by GameFi and Metaverse (e.g. index investment tokens for each game brand). This is what makes UnUniFi so different from existing Protocols and makes it so attractive.

14. About us

The UnUniFi Protocol is owned by Botany LLP(Yu Kimura, Takeru Shimojima, Kenji Yanagisawa). The developer team of the UnUniFi Protocol is CauchyE, Inc. which is a leading technologist company of Cosmos blockchain technologies in Japan.

15. Legal Disclaimer

Please be aware of and accept the following risks before using JPU or EUU. Botany LLP. and CauchyE, Inc. shall not be liable for any loss or damage arising out of or in connection with any of the following risks.

15.1 Risk of Losing JPU or EUU due to Loss of Private Key

The private key itself or a combination of private key shall be necessary for the disposal of the User's JPU or EUU, and the management of the private key shall be managed under the User's own authority and responsibility. The loss of the private keys associated with the wallet in which the user's JPU is stored is the same as the loss of the JPU or EUU itself. Phishing attacks against you or the JPU or EUU on your device may result in loss of JPU or EUU due to malware attacks, DoS attacks, consensus-based attacks, or any other form of attack.

15.2 Risks Related to the UnUniFi Protocol

Since JPU or EUU is based on the UnUniFi Protocol any malfunction, failure or failure of the UnUniFi Protocol may have a material adverse effect on JPU or EUU and may render JPU or EUU temporarily unusable.

15.3 Risk of mining attacks

JPU or EUU, like other distributed cryptographic tokens based on public chain protocols, may be subject to mining attacks during the verification of token transactions on the blockchain. These attacks may pose a risk to the recording of transactions related to JPU or EUU.

15.4 Changes in Laws and Regulations and Taxation Risk

There may be future changes in laws, government ordinances, statutes, regulations, orders, notices, guidelines, or other regulations or taxation systems related to JPU or EUU. You are responsible for making your own decisions regarding the taxation of the JPU or EUU.

15.5 Risks Due to Input Errors and Other Factors by User

There is a risk of unintended transaction results due to input errors or any other actions by the User, failure, malfunction or operational status of the User's or a third party's communication or system equipment, natural disasters, cyber attacks or any other causes.

15.6 Relationship between Users

Any transactions, communications, disputes, etc., arising between users and other users or third parties in relation to the Company's website shall be the responsibility of the users.

Thank you, Kava team

Our project is a fork project of Kava. We want to contribute to the Cosmos ecosystem and also to the Kava ecosystem.

Contributions

We have already made some little contributions to the Cosmos ecosystems. We will continue to contribute to the Cosmos ecosystem also the Kava ecosystem. https://github.com/cosmos-client/cosmos-client-ts

Contact

To contact us on the JPU or EUU topic, please create an issue ticket in GitHub. https://github.com/UnUniFi/chain