IPST & BUT

Parallel dual-currency economic system, scalable, stable currency and digital asset

Edison, Chevron Hon, Robbin Shiller

hello@ipst.io

March 2018

Abstract: Since Edison, a well-known economist, sociologist and the designer of the economic system, do not agree with the definition of currency in traditional economics, a completely new dual currency system was adopted. Currency does not have the dual function of media trading and value storage. Media transaction is the most essential function of currency. Value storage is the unique function of assets. Therefore, the system uses two currencies for media trading, which is defined as BUT (Block Universal token). BUT is a stable currency, and its stability is achieved by adjusting money supply, instead of anchoring the currency. Another type of currency, IPST, is devoted to value storage. Any item storing value can only be an asset, and only items with limited supplies (or are generally considered to have limited supplies) have the capability of value storage.

I. INTRODUCTION

A. BLOCK UNIVERSE TOKEN(BUT)

In the decentralized world, there has never been a more urgent need for a stable digital currency coin than this moment. The stability is used instead of the fixed currency. The decentralized movement has been criticized by some so-called scholars because of excessive speculation in currency, instead of a global digital currency that can penetrate into everyday life. Fortunately, the underlying architecture of IPS makes the large-scale application of

decentralized systems possible. Only in this case, one in the bit the emergence of universal digital currency in the universe became possible.

In the mechanism design of BUT, a new money supply adjustment mechanism and a new credit system based on transaction currency were designed. BUT aims to create a digital currency that can be used as the universal digital currency in daily life. It only has the functions of media transaction and self-regulation with the reliable credit system.

B.INTER-PLANETARY SYSTEM TOKEN(IPST)

IPST is the fuel driving the normal operation of the IPS system. It is also a digital asset with value storage ability. Since the total amount is limited by its value use, it will never increase.

C. A DEEP THINKING IN ECONOMICS

We have always believed that Bitcoin is not a digital currency but a digital asset. The basic function of the currency is a transaction medium and value scale. In contrast, the basic function of assets is to maintain and increase value. People need both assets and currency in their daily lives. We believe there must be decentralized system currencies and assets which drive the continuous operation of the system. However, the underlying economic logic of currency and assets is completely different and must be issued separately.

There have been various articles or charts comparing Bitcoin to gold. Obviously, all options of Bitcoin have indicated higher value than gold. The end of the gold standard monetary system is caused by the inseparability of gold, the difficulty of carrying, higher circulation costs, and the limited total amount of gold. The gold trading volume in London gold trading market far exceeds the underground gold reserves. Paper gold can be manufactured at will. The precise total storage of gold is unknown. However, the total amount of gold is limited in the public's perception. Any goods with a limited total amount can only be an asset, instead of long-term money or short-term currency.

Corresponding to digital currency, the historical evolution of gold to credit currencies will inevitably be digital assets. For example, Bitcoin transfers the functions of the transaction medium by a new global digital currency with stable and adjustable supply, but it only retains the digital assets attributes and the hard currency function in critical time. Based on this economic understanding, a parallel dual-currency economic system, stable currency BUT and digital asset IPST were designed. Its value stability is different from DAI, the anchored currency, or USDT which is endorsed by the legal currency but achieved through a transparent issue and destruction mechanism to strictly control the currency supply. There is no difference between IPST and the ordinary digital currency. It has both use value and price value. The total amount is limited, and there will be no issue or destruction. Therefore, IPST can only be used as a digital asset and a hard currency in crisis.

II. MORE ABOUT BUT

A.MISSION OF BUT

Exchange is regarded as the most essential relationship between people. The most essential function of money is the value scale and transaction media. The wealth of every individual in the economic system does not depend on the number of tokens, but the proportion of personal wealth in total social wealth. The reason for inflation is that the issuance of currency is not allocated to system participants in a fair or reasonable manner. The average and proportionate allocation mechanism of digital currency can realize self-regulation. Based on the economic understanding, an economic system free of hyperinflation and deflation will be prepared. In this economic system, a new currency allocation mechanism will be introduced to ensure the coexistence of fairness and efficiency and promote sustainable system operation.

B. DETAILS ABOUT BUT

Unlike ordinary digital currencies, the number of BUT is adjusted in real time. The supply is adjusted according to demand. To this end, several concepts should be defined. The first concept is currency days. Currency days = the number of coins * the time for holding the current amount of currency. Currency age is not only an important parameter of monetary adjustment in the later period but also the basis for the construction of a credit system. The second is our money supply adjustment mechanism, the DMM mechanism: each transaction behaviour in the system automatically triggers currency issuance in the amount of age number* adjustment coefficient (coin day * n). For example, Alice transfers 100W to Bob, and Bob provides Alice with apples worth of 100W. Alice is assumed to hold 100W in her account for only 0.5 day, and the system will automatically issue currency in the amount: 100W * 0.5 * 1 = 50W (assuming the adjustment coefficient is 1). As long as an actual item trades in the system, there will be a corresponding amount of currency day in this system. The Issued and unallocated currency will be added to the currency pool.

C. NET CURRENCY DISTRIBUTION MECHANISM

The allocation mechanism of new distribution currency ---POES is an important concept. A portion (A%) of newly issued currency is allocated to each account in the system evenly, and the remaining (B%) is allocated proportionately according to the balance of each account (A%+B%=100%), which is tentatively defined as A%=B%=50%.

D. CURRENCY SUPPLY ADJUSTMENT MECHANISM

To achieve the adjustable amount of money, it is necessary to establish a currency issuance mechanism and a currency destruction mechanism, so that a dynamic balance of currency supply be achieved. Transaction transfer and evaluation will consume a certain amount of BUTs as fuel, which will be

destroyed directly. Of course, users have the freedom of transaction, and the unallocated currency in the money pool is destroyed.

Here, the currency is issued according to MI=transaction amount*holding time*adjustment coefficient n. The decrease of currency consumes partial transfer transaction of BUT as fuel. Fuel=transaction amount* adjustment coefficient m. Net increase of currency= MI-fuel consumption at a certain moment. Here the coefficients n and m should be adjusted to control the money supply.

E. BUILDING A CREDIT MODEL BASED ON CURRENCY DAYS

1. CREDIT MODEL

Transaction behaviours can be divided into transfer transaction and evaluation transaction. Evaluation transaction means that the payment party evaluates the transactions independently. Credit scores and credit labels are also disclosed as world states, like account balances.

Credit label :

AAA: top 10%,

AA: ranking 10-20%,

A: ranking 20-30%,

BBB：30%-40%，

BB：40%-50%，

B：50%-60%，

CCC：60%-70%，

CC：70%-80%，

C：80%-90%，

DDD：90%~。

In the weighted model, the credit score of the user is multiplied by the currency days of the transaction to get the credit value of the address. The

model is as follows:

$$R_n = \sum_{i=1}^{i=n} R_i * W_i$$

$$W_i = C_i * D_i$$

$$R_i \in \{-1,0,1\}$$

-1 for bad review, 0 for medium review, 1 for good review

$$i, W_i, C_i, D_i \in (0,+\infty)$$

R_n is the credit value score of an address. R_i is the credit value of the user in the Ith transaction. W_i is the amount destroyed for the day of the Ith transaction. C_i is the amount of the Ith transaction. D_i is the time held by the amount of the Ith transaction.

2. Incentive Mechanism for Behavior Evaluation

The user who evaluates the transaction can earn 10% of the block's additional currency. The remaining 90% of the additional issuance is referred to the scheme in C for distribution.

3. The significance of establishing a credit system

The final credit score of a transaction **C = evaluation score * transfer amount * time of the amount holding**. The credit here is a reliable and cheat-proof credit. No individual can cheat through numerous, small, and false transactions. Credits based on address and private key are not tradable. In the system, individuals can only accumulate credit through honest behaviours. Thus a reliable credit system is established.

F. Monetary Policy Committee

The monetary policy committee regulates the issuance adjustment coefficient n and the fuel adjustment coefficient m. The monetary policy

committee is elected by a certain number of nodes which exercise the vote right through the proportion of money it holds. The rights of the decision-making committee include, but are not limited to:

1. Adjust the value of n, m in real time

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III. More about IPS

A. IPS token value

1. IPS token represents the right to use the network, computing, storage, security and other resources in the system. Meanwhile, as IPS ecology public awareness and participation improve, the price of IPS tokens will increase.

2. IPS token aims to become the universal currency of the virtual world. It is no doubt that the block chain can accelerate the virtual economy. IPS token will become the main medium between entities and virtual world.

3. The blockchain network can meet large-scale commercial scenarios with high efficiency and low latency. Therefore, it can be completely used as the transaction media in daily life.

B. IPS token allocation scheme

1. Token name: IPST

2. Initial issuance of tokens: 10,000,000,000(10 billion)

allocation plan	ratio	quantity
Private equity	20%	2 billion
Team reserves 20%	20%	2 billion
Foundation reserves 10%	10%	1 billion
Mining Award	50%	5 billion

20%: private equity which is primarily distributed to early investors;

20 %: team reserves Which are allocated evenly among technology, capital and operations committees;

10 %: foundation reserves which are used for project ecological construction;

50 %: mining award which is used to reward miners providing storage, computing, relay and safety nodes.

IV. IPS Governance Structure

A. Foundation Introduction

In order to promote the IPS project, the IPS Foundation has set up a technology and research committee, a capital and ecological construction committee, and an operation and promotion committee.

B. Technology and Research Committee

The main responsibility of the Technology and Research Committee is to provide full technical support to the IPS project and to implement the development, testing, and iterative development of the IPS project.

C. Capital and Ecological Construction Committee

The Capital and Ecological Construction Committee provides capital operation and ecological investment support to the IPS project. The committee is responsible for the fundraising of IPS projects, capital planning, market value management, and ecological investment.

D. Operations and Promotion Committee

The Operations and Promotion Committee provides operation and promotion support to the IPS project. The committee is responsible for brand building, community operations, and marketing of the IPS project.

V. ACKNOWLEDGMENTS

We thank Edison for his effort of this paper.....