Analysis of the Possible Demand of Stablecoins

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Abstract: Stablecoins, which are anchored by certain assets, have been gaining market attention in recent years as a branch of cryptocurrencies. The dollar domination in currency markets exists in cryptocurrency since some mainstream stablecoins anchor dollar. Looking back to when the Bretton Woods system was established, the dollar was pegged to gold and gradually became the world's main currency. Dollar-based global stablecoins haven't been completely developed, and their use on a global scale carries financial risks. This paper discusses the objectives of stablecoins and the differences between vision and reality based on existing literature and research data. In the process of realizing price stability, stablecoins also generate credit risk, and fall into the logical dilemma that "leaving fiat currency" and "achieving price stability" cannot be achieved simultaneously. This paper suggests that the compromise of stablecoin to centralization can solve part of current problems. Nevertheless, decentralization needs to be studied continuously in order to achieve stablecoin's objectives.

Keywords: Stablecoin, Cryptocurrency, Digital Currency, Blockchain, Global Monetary System

1.   Introduction

In the global money supply, the dollar supply is far greater than any other currency. As early as 1944, the Bretton Woods system was established, which is a capitalist world monetary system centered on the US dollar. The United States pegged the dollar to gold, turning it directly into gold and sending its value soaring. Since then, the status and influence of the dollar in the world have been on the rise. If the dollar and the international economy are closely linked, then the economies of all countries are linked together. Many countries around the world have held a certain amount of dollar assets for international trade in this case. As the dollar dominated currency markets, countries were forced to hoard dollars, leading to a savings glut and slowing global growth. The dollar-dominated international monetary system has also led to low interest rates around the world. Stablecoins have the potential to address this situation by creating a global currency that has four main objectives. However, there is a discrepancy between reality and theory. Problems exist in politics and economics, respectively. On the basis of previously published literature and research findings, this essay analyzes the goals of stablecoins and the discrepancies between vision and reality. It provides an outline of the current situation of stablecoins and suggests possible ways to perfect them, followed by the potential demand in the future market.

2.   Literature Review

The status and prospects of the dollar have aroused substantial discussion. Goldberg demonstrates that the dollar functions as a vital currency in the world market, including international transactions and debt markets [1]. Though the dollar is a sovereign currency, it plays the role of the world's currency.

Tether issued its first stablecoin Tether USD (USDT) in 2014, which is a digital currency that ties a common cryptocurrency to the fiat currency — the U.S. dollar [2]. The analogy between Stablecoins and the historical Bretton Woods system shows that stablecoins are linked to fiat currencies, as the dollar was once linked to gold, which may bring the risk of fiat currency dominance. In 1944, the United States established the Bretton Woods system. The dollar was pegged to gold, and the currencies of various countries were pegged to the dollar. The gold currency standard system was implemented, and the dollar officially became the core currency in the global economy, also known as the "US dollar" [3]. Objectively speaking, the establishment of the Bretton Woods system plays a crucial role in the stable recovery of the world economy. At that stage, the United States played a referee role in the global political and economic environment, and provided important public goods for the post-war global economic recovery, which had positive significance. After hooking up with gold, the dollar turned to oil which used to be an important driving force for the development of the world and is closely related to the economic development of all countries around the world. The United States first decoupled the dollar from gold, and then cooperated with some oil countries to peg the dollar to oil through various means. When oil countries trade, they only use dollars. As a result, the dollar has consolidated its dominance among global currencies. At that time, countries around the world were forced to use dollars to purchase oil. Hence, they gradually accepted the use of dollars to do oil transactions, and even began to use dollars as an intermediary in international trade.

To avoid the situation that certain fiat currency plays a dominant role in international market, the concept of the global stablecoin was proposed. Stablecoins, as a branch of cryptocurrency, have the basic properties of currency. The origin of stablecoins is associated with the demand for payment in the crypto world. Cryptocurrencies tend to be viewed as commodities with volatile values, rather than stable stores of value assets that have the attributes of money [4]. When investors want to exchange cryptocurrencies for general fiat money, they often need to convert them into mainstream cryptocurrencies like Bitcoin before converting them into traditional fiat money. As a result, investors have to bear the cost of risk due to price fluctuations to receive traditional fiat money. Volatile prices will be detrimental to the overall development of the market. The crypto world needs more stable stores of value to connect with the real world. Given that the core of decentralization is built on the consensus of the participants, it is supposed to underpin confidence in the crypto world. In this context, stablecoins have emerged as a bridge between traditional fiat currencies and unstable digital cryptocurrencies.

Stablecoins are cryptocurrencies whose prices are pegged to fiat currencies and whose volatility is minimal. A large part of the fluctuations in their value are due to the exchange rate fluctuations of the anchor currency. Most stablecoins are anchored by the dollar. It should be noted that stablecoin is not the electronization of real money, but a programmable cryptocurrency based on blockchain technology, whose birth and circulation depend on the blockchain network [5]. The essential feature that differentiates stablecoins from other cryptocurrencies is that they are anchored to the value of real-world currencies, and there are also differences between stablecoins in different forms of anchoring. Broadly speaking, stablecoins fall into three main categories: stablecoin secured by fiat money, stablecoins that use crypto assets as collateral and stablecoins that use algorithms to maintain a basically stable exchange rate [6]. Scholars concluded that transparent money flows

increase market efficiency. Since stablecoins transfer are recorded on the public blockchain, it is transparent to everyone. Hence, stablecoins transfers can increase market efficiency [7]. Based on stablecoin's currency attributes, it has the potential to form a super-sovereign stable-currency that exceeds national sovereignty, central bank and commercial bank. Objectively, its stability will surpass any single sovereign currency and compete with the legal tender of all sovereign countries in the world [8].

Lipton et al. illustrate that stablecoins have been considered a potential medium for a more accessible and advanced form of money. As new technologies emerge, how to use stablecoins properly is a question worth substantial attention [2]. Facebook published a white paper for Libra stablecoin in 2019, and proposed a design scheme for Libra 2.0 in 2020. It intended to meet the characteristics of anchor of the global monetary system and help to avoid government credit crisis. Its public property can also solve the problem of periodic financial crises, and serve as a good carrier for the practice of super-sovereign currency [9]. In the context of the current structural imbalance in the world monetary system and the matching of financial resources, Facebook issued Libra, which put forward a bold idea of "maintaining currency stability" and realizing "global financial inclusion" led by non-sovereign countries [10].

3. Stablecoin Objectives

3.1. Stability

The value of the majority of stablecoins is based on the price of a particular fiat currency, such as the US dollar, or a particular commodity, such as gold. A stablecoin that tracks the dollar should be worth a dollar as pegs mean that its prices are fixed. The peg can be kept in place via a variety of methods. Asset-backing, the most popular method for creating stablecoins, measures the ratio of the total number of stablecoin tokens in circulation to the total number of underlying assets. If there are assets of equal value backing it for every stablecoin in circulation, the stablecoin would receive 1:1 support. For a stablecoin backed by dollars, it will retain its value as long as the stablecoin can be exchanged for dollars. If the value fluctuates sharply in either direction, traders hoping to profit from price differences between markets will step in to reduce the gap.

3.2. Low Inflation

Simply, inflation is shown by subtracting the amount of money produced from GDP. In theory, to make the economy grow steadily, money supply should grow slightly more than GDP. A persistent decline in the value of money is ensured by stable and moderate inflation, providing incentives for both individuals and corporations to produce and grow. High inflation can easily result in local overheating, derivative bubbles, and economic instability. On the other hand, the home sector's ability to accumulate social wealth is hindered by excessive consumption-end inflation. Nevertheless, it is difficult to achieve low inflation for two main reasons in reality. Firstly, different countries calculate their GDP in different ways, which makes it difficult to measure inflation. Secondly, the circulation of money is not evenly distributed. For example, financial institutions hold a large portion of the property, so they have the potential to destabilize the market.

3.3. Global Acceptance

Stablecoins aim to create a global currency that can improve the availability of finance, make financial services more inclusive and financial operation more efficient. Although globalization will bring great help to the economy, it puts forward higher requirements for tariffs and trade barriers. If the entry threshold of foreign goods into the domestic market is very low, foreign countries get a lot

of economic benefits, resulting in domestic capital outflow. Moreover, high-quality imported goods attract domestic people to consume, which has negative impacts on the development of relevant domestic industries to a certain extent.

3.4. Interchangeability

Assets must function as a medium of exchange, a unit of account, and a store of value in order to be utilized as money. It implies that assets must maintain their value, be employed to determine the worth of goods and services, and foster trade. The ability to be utilized as a medium of exchange, spanning the gap between fiat currencies and cryptocurrencies, is the most evident advantage of stablecoin technology. By reducing price volatility, stablesoins can achieve a completely different utility than traditional cryptocurrency. Stablecoins were actually a product of regulation, but later we found that stablecoins played a huge role in value anchoring and value circulation. Every country can issue stablecoins, but the most significant thing for stablecoins is to anchor the mainstream currency. For instance, stablecoins anchoring U.S. dollar are the most widely used at present.

4. Actual Situation

4.1. Stability

The official settlement gap in the balance of payments is divided into two major parts: the current account and the capital account. Due to the relatively small proportion of capital account in the past, the previous balance of payments theory all focused on the current account, especially the trade balance of payments, assuming that the settlement of the trade balance of payments problem would solve the balance of payments problem. But a lot has changed in the present, notably the deepening of globalization and the financialization of the economy. Both short-term and long-term capital flows of enormous magnitude are produced internationally. Short-term capital is particularly susceptible to exchange rate movements, whereas long-term capital flows are not as vulnerable. A minor decline in the value of the domestic currency could trigger significant short-term capital outflows and have a significant influence on the balance of payments. The global foreign exchange market has an average daily turnover of over $7.5 trillion, the majority of which consists of capital flows with no prior trade or investment history, particularly arbitrage and arbitrage capital flows [11]. If a country's currency exchange rate or interest rates rise, or if expectations rise, hot money influxes. In the case of currency devaluation, keeping hot money from flowing out only raises interest rates, which in turn can lead to inflation and currency devaluation.

4.2. Low Inflation

In an economic crisis, traditional finance has governments as saviour. For example, when the US financial crisis broke out in 2008, the US government began to use its visible hand to stabilize the stock market and housing market in the short term through the 700 billion US dollars rescue plan and quantitative easing. But it has also had long-term negative effects on the U.S. economy, such as inflation and currency depreciation. For stablecoins, there is no central institution to save the market. As a result, stablecoins are unable to make decisions about how to distribute money and need trustworthy, centralized institutions to decide how to save the economy in times of crisis. Instead of handing out money directly, issuing coupons to track national spending would also be beneficial to prevent money from being recovered due to unreasonable economic phenomena. Moreover, it is also conducive to combating illegal crimes.

4.3.   Global Acceptance

For powerful countries, currency is a weapon. On the one hand, it is related to the economic benefits of the consortium. On the other hand, it can also be used as political chips for politicians. But stablecoins require countries to give up the weapon of currency, which could lead to opposition from some countries. At present, money is still used as a tool to impose economic sanctions, and it is also a good financial weapon, which can not only affect the economy of a small country, but also change the votes of its people. If it can be used as a weapon, then the user of the weapon and the issuer of the currency, has no reason to give it up. Otherwise, it will lose a lot of other benefits.

4.4.   Interchangeability

Achieving interchangeability is technically possible, but in practice there are still problems. The first question has to do with the exchange rate, exchanging stablecoins with fiat coins. The second issue concerns the customer's incentive to switch. Circulation is an important attribute of currency which serves as a medium of exchange in commodity transactions. The velocity of money flow reflects the efficiency of money and can reflect economic activity to some extent. Because stablecoins are relatively stable in price and are issued by private institutions, users lack the motivation and trust to exchange stablecoins A and B, which makes it difficult to achieve interchangeability.

5.   Conclusion

Achieving the four objectives of stablecoins is the ideal situation, but there are still some problems in the practical situation. There are two possible options for decentralized stablecoins. The first is to accept the centralized stablecoin as a tool to improve the efficiency of capital and find ways to scale it up and make more people use it. Projects that choose this path may care more about whether more people can use it to obtain more profits than about centralization or decentralization. Centralized stablecoins provide a bridge connecting the real economy with blockchain. It maps the value of the traditional financial world to cryptocurrency and provides a carrier with a stable value. The emergence of centralized stablecoins has promoted the development of blockchain. However, as the scale of centralized stablecoins continues to expand, blockchain runs counter to the spirit of "decentralization". The other option is to explore "real decentralization". That means a tough road ahead, but it's also a goal that true blockchain proponents aspire to. Despite the potential for agreement sanctions and project collapses due to conversion failures, further exploration of decentralization could lead to great progress in the future. Though this paper points out two possible ways to solve the issues of current stablecoins, it lacks scientific methods to achieve thorough decentralization according to existing studies. With the advancement of future research, more practical and concrete methods will be proposed to solve the problems of stablecoins.

Acknowledgement

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