

The Basic Characteristics of Stablecoins

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Abstract: The stablecoins is stable, because the issuing process needs a full backup of a fiat currency; it is private, because unlike the fiat currency, it is not supervised by the national organs but the issuer alone; it is convenient, because it's faster than those payment tools without the blockchain technology; but the utmost important one of all these characteristics is, half-centralized. The main object of this study is to know the basic characteristics of the stablecoins and show clearly to readers what the stablecoins (and their issuers) are, and what they could do to the modern world.

Keywords: Blockchain currency; The Genius Act; Supervision; Private; Half-centralized

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1. Introduction

Traditional blockchain currency such as Bitcoin or Ethereum is not subject to supervision of any specific entity (let alone the central banks), hence they are “decentralized” currencies. However, though the mainstream stablecoins, namely, USDT and USDC, also originated on the blockchain, their daily circulation and usage, are under scrutiny by their issuers: Tether Corporation and Circle Corporation respectively. Thus, they could be considered as “centralized” blockchain currency in a sense, though not supervised by the central banks like fiat currency. Since this “centralization”, plus the other nature like the issuers could only invest in short-term bonds or cash after they get paid by the investors, is demanded by relevant governing law as the Genius Act or the HK Stablecoin Ordinance, lawful stablecoins will be born if all these legal requirements are met. Nevertheless, they are considered “unlawful” currency according to the regulations or legal explanations of many other countries, right on the issue that the stablecoin is not a real “centralized” currency because it is only subject to the scrutiny by private parties, that is, their issuers, rather than by the central governing bodies. The extreme case is stablecoins like DAI, not supervised even by a specific issuer, or algorithmic stablecoins like AMPL, born from nothing but mathematical formula, though these kinds of stablecoins are not large in terms of volume.

The main purpose of this article is to clarify on these characteristics mentioned above of the stablecoins. As to the arrangement of paragraphs, the “half-centralized” occupies a big part of the whole thesis, based on the logic that characteristics like privacy or convenient are basically originated from it.

2. The stability

2.1. The stability is mainly caused by the full backup of the fiat currency

Compared with the traditional virtual currency, the Bitcoin or the Ethereum, the stablecoins has the characteristics of being stable because it requires the equivalent endorsement of fiat currency such as the US dollar to support its value whereas the former has no such requirement at all (though Bitcoin's halving occurs approximately every four years, or every 210,000 blocks). Even if the history of human nature tells us that once a currency is created it will be an inevitable fate to expand its credit without the restrictions of reserved assets, up to now, legislative requirement of this full backup still makes the fluctuation of the value of the stablecoins far less than that of Bitcoin and Ethereum, not to mention other more unstable virtual coins that skyrocket or go to zero in an instant, like the Luna. Since the valuation of the stablecoins follows that of the US dollar's, the price of the former will also fluctuate as the latter does. Although the US dollar has been depreciating continuously over the years compared with those strategic non-renewable assets such as land, gold, silver, copper and tin, this depreciation is traceable and even predictable, while for most of the normal virtual currency, including the widely accepted Bitcoin and Ethereum, the price has always been in an extremely unstable state of fluctuation, whether by reasons of a possible breakthrough of the code by quantum computers, or by a sudden burst of trade war which has a great negative impact on the stock market hence drags down the price of virtue currency altogether, while it has little impact on the price of the stablecoins itself, like USDT or USDC (as to the dropping of the price of its issuer, the Circle, it is another story).

2.2. The importance of being stable

Up to now, the main function of the stablecoins is to pay other individuals or companies during a transaction but without credit creation function, which is similar to the third-party payment systems like WeChat and Alipay in China. That is, all these three payment tools must be supported by a fiat currency as a reservation whether it's dollar or RMB with a ratio of 1:1 before it can be issued. However, it is not excluded that some issuers of the stablecoins will in practice secretly and quietly break through the restrictions of this fully reserved ratio demanded by relevant laws as the American Genius Act (or the HK Stablecoins Ordinance) in the future, so that the reserved fiat currency no longer need to correspond to the stablecoins with a ratio of 1:1, but 1:2 or even 1:10 (as the requirement of reservation ration in the ordinary commercial banks of the deposits and the loans). If this phenomenon really appears in the future in reality though not on surface by the law, it will equal to countries engaging in monetary easing in disguised form in order to relieve debt pressure. Gradually, the governments of various countries will amend laws to make it no longer need to correspond to the 1:1 ratio between the stablecoins and the fiat currency as a reservation to back the former's creditworthiness, the action of which may raise people's worries about hyperinflation to a great extent because of these equals to a quantitative easing. Then, the most critical issue that affects the long-term existence and continuous development of the stablecoins will come: the stability may disappear. It is well-known that aside from the half-centralization, privacy and convenience, its value is stable and therefore could resist the hyperinflation and devaluation of Peso is the most important logic behind the motivation of Argentine consumers choose to replace their fiat money with the stablecoins (mainly the U.S ones but right now they have their own) during a domestic trade or international trade. If the promise of 1:1 ratio by the fiat currency to support the creditworthiness of the stablecoins is broken, why Argentine consumers bother to use the latter issued by a foreign company to finish a transaction? It just doesn't make sense. Under this hypothesis, the breakthrough of the "fully backed by the fiat currency" principle may not appear in the foreseeable

future, let's say, the next 5–10 years at least, by relevant governing laws.

3. The half-centralization

3.1. The difference on the “centralization” between the stablecoins and normal crypto currency

The traditional blockchain currency, like Bitcoin or Ethereum, adopt distributed ledger technology instead of a centralized account book, which means though all transaction records are opened to the public and cannot be tampered with, the transaction address (the public key) is not directly related to the identity information of the traders ^[1]. Ordinary users can only view their own transaction records and cannot directly query the account information of other users: therefore, on theory, they are literally decentralized currency. For example, if a buyer wants to buy some special things like weird clothes but doesn't want the seller to know his/her name or even his/her gender (in case the seller is the buyer's friend by accident), he/she could do this through Bitcoin payment since only a mail address will let the seller know together with the Bitcoin address and Bitcoin transferring records on the blockchain ledger shown as a bunch of abstract mathematical numbers ^[2]. Since the stablecoins are also blockchain currency adopting distributed ledger technology, many people think that it's just another kind of blockchain coins using exactly the same blockchain technology and paying as secretly as Bitcoin. However, they are wrong on this for the underlying logic of these two technologies are very different, that is, though the circulation and usage of the stablecoins is as same as Bitcoin which is not subject to the supervision by the government and the central bank, the former is under daily examination by the issuing company whereas the latter is not required to act in this way (actually there is no a specific issuer for Bitcoin). Therefore, though on surface the issuance of stablecoin adopts the blockchain technology, it is an essentially centralized currency. From this perspective, the stablecoin is more like the fiat currency of various countries, such as U.S Dollar or RMB digital currency, than the traditional blockchain coins ^[3]. This “half-centralization” nature is not only determined by the Genius Act of the U.S, but also countries and regions of other jurisdictions such as Hong Kong. The HK “Stable Currency Regulations” launched in August 2025 specifically stipulated as follows:

- (1) The issuers need to obtain a license given by the government before issuing the stablecoins;
- (2) They carry the responsibility to supervise its usage and circulation after the issuance ^[4].

3.2. The difference on the “centralization” between the stablecoins and fiat money

There is a serious difference on the point of centralization between the stablecoins and fiat currency: as mentioned above, the former is supervised by the issuers who are basically private companies or institutions, whereas the latter is supervised by the central bank ^[4]. This difference is of utmost importance because this is one of the main reasons for people choosing to use the stablecoins rather than the fiat money and why some countries still don't recognize its legal status ^[4]. The “half-centralized” nature is also the basis for the existence of the stablecoins, besides its value being stable. The reason of people's choosing the stablecoins in daily life or international trade rather than fiat currency, Alipay or Wechat Payment, is that in reality the using of the latter is really not as convenient and private as the former, especially for cross-border payments. Besides, reasons that these payment tools have the shortcomings of being slow or posing a limitation amount, under scrutiny either by the central banks, national banks or by cross-border payment systems, namely, the SWIFT, is another one scares away many parties during a trade.

However, this very crucial issue may face a major challenge in the near future: European Community, Japan,

or even the U.S itself that are in a rush recognizes the stablecoins' legal status ahead of other countries, are seeking to implement government supervision of its daily usage and circulation. The reason why it has not been progressed to this point so far lies precisely on the consideration that once this is done, the foundation of the existence of the stablecoins will be shaken. It could be easily understood that many people will choose not to use the stablecoins as a payment tool if it's usage, storage and circulation is subject to governments' daily supervision ^[5].

3.3. The decentralized stablecoins

Though the main kinds of the stablecoins, as USDT or USDC, meets the rule of "centralization" demanded by various law, there are stablecoins issued and managed in the form of "decentralized" . There are two kinds of them, one is created by mortgaged assets and another by algorithmic ^[6,7]. The reason these coins being called "decentralized" is not only that their invention does not rely on one specific centralized institution or entity, or in the algorithmic case even there is no such one, but also their daily operation is not subject to scrutiny by their issuers.

Looking at the most famous one, DAI ^[8]. It was launched in 2017 by MakerDAO, a special decentralized organization running on the Ethereum blockchain for years. By so-called "Maker" mortgage loan agreement, potential investors of DAI can use a variety of encrypted assets like Ethereum as collaterals to generate DAI. The system adopts the-excessive-mortgage-mechanism, which means an automatic liquidation procedure will be triggered to ensure the enough payment capacity of DAI generated by the investors when the mortgaged assets depreciate to a certain extent. This results in the value of DAI being stabilized though it's not a centralized stablecoin. Besides the liquidation mechanism, there are other means to insure the value of DAI such as there is Stabilized Fee, a certain range of interest rate for savings of DAI, and an Emergent Shutdown Mechanism, to keep the price of DAI stable altogether.

4. The convenience and privacy

4.1. Where is the convenience and privacy

According to statistics, many enterprises begin to use the stablecoins as a payment instrument for their business activities, especially in international trade, nonetheless the big issuers like Tether Corporation or Circle still concentrates on the consumer end rather than the business end which looks like a fatal mistake rather than a mere flaw in their strategies to make the stablecoins big nationwide as well as worldwide. Naturally companies have more personal and other resources than most people to get to know the advantages of using the stablecoins instead of fiat money or other third party legal payment tools, but where is the "Convenience and Privacy"? Take the international trade or investment as an example: if it is done by WeChat Payment or Alipay, the maximum amount for each transfer is \$10,000, to prevent a possible illegal capital outflowing and under the name of "for the sake of safety for the payer". It can be imagined, how tedious work it is for a company account to finish a deal with payments hundreds of times the total amount to pay is millions of dollars, though the amount of \$10,000 for each transfer looks big enough for most C to C or even B to C deal. As to the stablecoins, because of the blockchain technology that the fiat currency or third-party payment does not have, not only can the transfer be completed with almost no limitation on amount, but also within half an hour while in the fiat money case it usually takes one or two days. What's more, the handling fee of a payment by the stablecoins is much cheaper than the fiat money system which creates a huge competitive edge aside from the timing and amount of transferring that may

look not so important in many occasions.

4.2. The convenience and privacy is brought by the “half-centralization”

In an international trade, since the stablecoins is not subject to the scrutiny by the domestic banking system of the country where it is issued, as well as not subject to the supervision of the international banking system, the users are able to keep their personal property information away from the national power to a great extent. In practice, it is really difficult to supervise the stablecoins' transactions, which of course provides an excellent way for illegal behavior like money laundering, drug dealing or illegal purchasing of weapons. Recalling the incident just couple of years ago that Apple refused the FBI's asking for help to unlock the password of the terrorist suspects who held the IPHONE (it is astonishing that Huawei, as a leading Chinese enterprise, publicly supported Apple's behavior afterwards), it could be inferred that the monitoring of a company's material product by itself is against human nature even though a serious criminal case is involved, let alone to monitor the digital product like the stablecoins by its issuing company since the original idea to invent these things is to let them become “half-centralized” or even “decentralized” in order to invade scrutiny from the national organs, unless the usage directly infringes on the issuers' economic interests. It should never be expected that the inventors actively supervise the circulation and usage of the stablecoins, not to mention reporting some suspicious illegal behavior to the judicial department.

It should be added here that from the technical point of view the so-called “half-centralization” of the stablecoins means that in addition to the issuer's legal monitoring status, other users of the stablecoins can also monitor the use of a specific holder. This provides a legal and hidden channel for the government's supervision. For example, let a policeman buy the specific stablecoins issued by a specific company involved in a criminal case, or becomes a party to the transaction with a suspect. From this point of view, the use of other normal virtual currency as a payment tool, such as Bitcoin, also doesn't exist absolute privacy: first of all, the transaction records are on the public account book, which all holders can see. Moreover, although the Bitcoin transaction itself is anonymous, the traders could be required to provide identity information by the government under special circumstances regulated by relevant laws (such as the Freedom of Information Act in the U.S though the original purpose of this act is to demand the government to release information to the public).

5. Conclusion

Among all the characteristics of the stablecoins, the difference on the “centralization” problem between the stablecoins and fiat currency is the most crucial one. It is expected the new regulations to ensure that the daily usage is also subject to the scrutiny of relevant national supervision organs may come out in the near future, considering their “take-in-and-run-away” nature born from their “not being supervised by central banks” when a crisis of collapsing of price erupts.

Disclosure statement

The author declares no conflict of interest.

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