

White Paper

"Stablecoins: What Are They and Why Do They Cause FUD amongst Politicians?"

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Over the last three months, we believe that Janet Yellen, Elizabeth Warren, and Gary Gensler have been on a mission to spread FUD (fear, uncertainty and doubt) amongst the Biden administration and Congress about stablecoins. As a result, we thought it would be helpful to shine a light on stablecoins what they are and how they participate in the digital asset infrastructure.

On the first day of the fourth quarter of 2021, the Wall Street Journal (WSJ) Online reported in an article entitled, *Biden Administration Seeks to Regulate Stablecoin Issuers as Banks*, that the Biden administration is considering ways to impose bank-like regulation on the cryptocurrency companies that issue stablecoins such as Tether and Circle's USDC. Many speculate that regulators have been prodding the firms to register as banks. In fact, the administration is also expected to urge Congress to consider legislation to create a special purpose charter for such firms that would be tailored to their business models.

According to the WSJ, the moves "are intended to address regulators' fears that stablecoins—digital currencies pegged to national currencies like the U.S. dollar—could fuel financial panics and need to be more tightly regulated." This would take place in parallel with the Financial Stability Oversight Council deciding whether to designate stablecoin activities as systemically important.

From the administration's perspective, it would be preferable if Congress were to impose or authorize a bank-like regulatory framework for stablecoins, as well as a series of investor protections for cryptocurrencies. If Congress does not act, and its other recommendations go unheeded, the administration would not be reluctant to use FSOC, one of the people said.

In addition, since it appears that bank-like regulation for stablecoins is now inevitable, it is virtually assured that stablecoins will be deemed systematically important.

Which is actually great news for both stablecoins, and the greater crypto ecosystem, because it means that instead of crushing this vital link between fiat and digital tokens and seeking to snuff out cryptocurrencies at the root - as China has done - the US will instead push aggressively with a regulatory approach, one that most industry participants had already expected.

Indeed, while at present many stablecoins are lightly overseen at the state level, some companies such as Circle have said they are seeking to become banks. At least some members of Congress, such as Sen. Cynthia Lummis (R., Wyo.), have recently signaled that stablecoins may need to be regulated in this manner.

"It may be the case that stablecoins should only be issued by depository institutions" or by firms regulated as mutual funds, Ms. Lummis said in a Senate speech this week.

We believe that at the root of the notion of stablecoins lies a desire to reconcile two different worlds: that of legal currency and fiat currency's stability of purchasing power, and that of digital assets and the instability of value often associated with digital assets.

What is Money?

Money is defined by three main functions: means of exchange, unit of account and store of value. In part, digital assets were created to improve on these functions, ushering in an era of "programmable money" and smart contracts. However, none has truly succeeded in improving all three functions in a superior way.

Fundamentally, most digital assets do not fulfill the three basic functions of money, with the greatest concern coming from their volatility. In fact, most have even moved away from their original designations as "cryptocurrencies" to "crypto or digital assets." There is a class of digital assets, however, designed specifically to solve for volatility, commonly known as "stablecoins." This is a relatively new category built to hold consistent value over time. Although stablecoins have gained some traction, the existing models lack one fundamental characteristic that is key to widespread adoption: trust.

The Importance of Trust in a Monetary System

Moving from gold coins to fiat currency or pieces of paper, which is inherently a valueless representation of money, requires trust in several forms: trust that the system would maintain fair market pricing of goods and services against the currency, and trust in a broad set of market participants to follow a new set of operating principles. No longer could one simply make a deal that two parties agree to be fair, as done when bartering between individuals, the new rules required that beyond the two transacting parties, everyone within this larger society generally agreed on the value of the goods.

When considering the problem of collective trust in a currency system, it becomes clear why governments have had the most success in doing so. A central authority, such as a government, can have control over the monetary supply and the value of money ensuring that it is stable enough to have utility for all market participants, and it can create the legal framework within which citizens operate. When there is a finite, defined and large enough total market, with a central authority and accountability (the governing body backed by a large military), all market participants can safely assume a level of trust in the system (except when governments de-value the currency by printing absurd amounts of money) and each other. These are the principles that have underpinned money for thousands of years and have become ubiquitous in fiat form across all modern nation states.

Trust and Digital Assets

Trust has been designed in the very logic of how distributed ledger technology (DLT) based digital assets operate. DLT is rules-based and very hard to change. All changes to DLT are recorded and confirmed in a decentralized way that is created specifically to democratize access. Rather than using a trusted intermediary to facilitate transactions, distributed ledger technology serves as the trusted, consensusdriven protocol.

Distributed ledger technology (DLT) has allowed for the creation of new digital forms of money and payment systems that could serve novel purposes and extend some of the well-known economic and regulatory issues with past innovations into the digital realm. Existing stablecoins such as Tether, USD Coin and Maker's Dai aim to serve as a means of settlement for automated financial products. They also offer the possibility of so-called "smart" contracts, i.e., self-executing code, and possibilities for "programmable money". Stablecoin proposals such as Diem claim that they will make possible new forms of online exchange through their 24/7 availability, borderless nature, fractionalization and

integration with non-financial services. We believe stablecoins will challenge existing digital means of payment for e-commerce like traditional bank payments, credit cards and electronic wallets.

What Are Stablecoins?

A stablecoin is a digital currency that is linked to an underlying asset such as fiat currency or a precious metal such as gold. The main types of stablecoins include fiat-backed stablecoins and algorithmic stablecoins.

Stablecoins keep their assets at consistent prices by using reserves of fiat money. In theory, for every coin that is released or minted, the stablecoin has an equal amount of the fiat asset in its reserve. This is a relatively simple means of keeping a coin tied to a certain asset, as there is always a 1:1 ratio of digital asset and fiat. Stablecoins can also be pegged to other things such as precious metals, stocks and/or bonds. Often the asset that backs the stablecoin is key to the public's faith in the stablecoin and its ability to hold its value. Today, the three most popular stablecoins, Tether's USDT, Circle's USDC, and Paxos' USDP, are all stablecoins and backed by varying blends of fiat currency and investments.

Algorithmic stablecoins keep their prices stable in a very different way. Instead of having a reserve of fiat or physical assets, they maintain stability by algorithmically altering the circulating supply of coins to match the market cap. In cryptocurrency, market cap represents demand. Usually, when the market cap rises, the worth of each individual coin rises in price. However, algorithmic stablecoins try to avoid this from happening, as their aim is to keep the price stable (or in a tight price range). To achieve this, the circulating supply is programmed to change whenever the market cap changes. For instance, when the market cap (or demand) increases, so does the circulating supply. This means that instead of each individual coin being worth more, the coins stay at relatively the same price as before, which happens by automatically distributing more coins to wallet holders. When the market cap drops, the circulating supply does, too. This means that many coins get burned or destroyed, meaning that instead of the price of the coins dropping, they once again, stay the same.

Stablecoin Usage

Initially, stablecoins evolved in order to address the failure of Bitcoin and other cryptocurrencies to provide an effective monetary and payment instrument. This reflected the preference of main market participants to base transactions and payments on sovereign fiat currencies; the US dollar in particular. It also reflected weaknesses in Bitcoin and other cryptocurrencies as a means of payment, store of value or unit of account. However, as no digital form of the dollar or other sovereign fiat currencies were available, market participants developed the stablecoin structure as a means to address this issue, as well as to provide an instrument to support hedging between crypto assets and fiat currencies. The need was for a bridge between DLT and fiat currencies, with stablecoins seeking to fill this need. This was particularly relevant in the context of high volatility in the price of Bitcoin, making it less useful as a payment instrument and more of an investment or hedge.

If successful, stablecoins could be a means to simplify and enable novel forms of exchange in the digital economy. For instance, smart contracts could allow for the automation of certain transactions such as only transferring the funds for a house purchase once an inspection report has been received and confirmed. The financial transfer is thus automated on the basis of certain objective conditions, which trigger payment. The digital payment would be linked to fiat currency and accounts via the stablecoin. Decentralized transactions could enhance the efficiency of wholesale payments and settlement, trade finance and capital market transactions. In such transactions, embedding payment into the transaction has the potential to both reduce risk (particularly payment and settlement risks) as well as enhance

efficiency. Smart contracts could also execute micro-payments, such as self-driving cars that pay one another to change lanes when one is in a hurry and traffic is particularly heavy, or computers that pay one another for file storage space or processing power. Governments could use "programmable money" in the form of stablecoins to restrict the purposes that government-to-person payments could be used for, such as only groceries, or making such funds "expire" after a certain period.

Conclusion

We believe that DLT will enable finance and technology to continue to evolve at an exponential rate. Today, technology is not only transforming finance, but money as well, with the advent of a range of challengers to traditional sovereign currencies, from Bitcoin to stablecoins. We believe the evolution of "stablecoins" offers important potential to embed a digital monetary instrument in distributed systems and transaction frameworks. Obviously, with all technologies for payments and all structures involving asset backing, there is a need for adequate regulation and we believe industry participants will welcome regulation at the end of the day.

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