Digital Assets Academy[23]

Lecture 05 — Tokenized Money: A closer look at Stablecoins

Transcript

We introduced to you the three digital asset categories: Cryptocurrencies, Tokenized Money, and Tokenized Assets. Now let's take a closer look at Stablecoins, which next to CBDC and Tokenized Deposits, fall into the tokenized money category.

Stablecoins are a type of digital asset where the value is pegged 1:1 to a reference asset that lives off-chain, such as a currency, commodity, or financial instrument. In today's stablecoin market, 99% of stablecoins peg their value to the US dollar and thereby aim to provide users with a secure and value-stable payment instrument for transactions within blockchain-based ecosystems.

Cryptocurrency's volatility comes in contrast to the generally stable prices of fiat money, such as U.S. dollars, or the low volatility of assets, such as gold. Values of currencies like the dollar do change gradually over time, but the day-to-day changes are often more drastic for cryptocurrencies, which rise and fall in value quite regularly.

Said succinctly, stablecoins try to join the transferability and programmability of blockchain tokens with the stability of other assets, usually fiat currencies.

Ensuring that the stablecoin remains *stable* is essential, and several methods to do that have emerged. The most prominent and successful one to date is to create a reserve of high-quality liquid assets to serve as collateral for the stablecoin. The issuer of the collateralized stablecoin will maintain a "reserve" to store the assets or basket of assets that back the stablecoin and from which redemptions can be met. If the stablecoin issuer prudently maintains collateral equal to or in excess of the issued token supply and maintains consistent creation and redemption operations, the stablecoin should maintain price stability.

Stablecoins come in a range of flavors. It's important to differentiate between collateralized stablecoins and algorithmic or uncollateralized stablecoins.

Independently from the referencing asset, also refers to as a peg, for instance a fiat currency or a commodity, collateralized stablecoins can use a variety of types of assets as backing.

Mixed collateral based stablecoins, usually referred as fiat-backed stablecoins, are a mix of High-Quality Liquid Assets, and additional financial assets such as corporate equity, debt and cryptocurrencies. For example, Circle backs its US dollar-pegged stablecoin, USDC, with short-term US Treasuries and cash at banks, while Tether, which is the largest stablecoin issuer in the

world, backs its USD-pegged stablecoin, USDT, with short-term US Treasuries, cash, precious metals, corporate bonds, secured loans, and Bitcoin.

There are also Commodity-backed stablecoins. Some stablecoins are pegged to the value of precious metals such as gold. For example, Paxos offers price exposure to gold with its PAX Gold, PAXG, stablecoin and collateralizes it with physical gold stored in vaults.

There are also Cryptocurrency-backed stablecoins. Some stablecoins use other cryptocurrencies, such as ether, the native token of the Ethereum network, as collateral. For instance, MakerDAO backs its Dai, DAI token, with an overcollateralization, over 100%, of every USD-pegged Dai in stablecoins, Bitcoin, and Ether, among other digital assets.

You may have also heard of Uncollateralized or Algorithmic stablecoins, which do require some caution. These stablecoins are backed by an on-chain protocol that pegs their value to a supply/demand ratio maintained by an algorithm. The most prominent algorithmic stablecoin was Terra, which was backed algorithmically by the creation and redemption of another cryptocurrency called Luna. Because Luna was endogenous *collateral* issued by the same entity as the stablecoin it backed, when the market lost faith in Terra and began redeeming for Luna, a dangerous feedback loop emerged that collapsed the value of both.

While there are collateralized stablecoins, cryptocurrency-backed stablecoins, and algorithmic stablecoins, this lecture focuses on collateralized stablecoins.

What blockchains do stablecoins use?

The major stablecoins exist on different blockchains to achieve wider accessibility and improve interconnectivity within the cryptocurrency ecosystem. This allows users to transact with stablecoins on their preferred blockchain and to take advantage of the specific features and benefits of each network.

At the time of this recording, the global stablecoin market capitalization is around $120B USD with Circle's USDC and Tether's USDT accounting for over 80% of the overall market. The Euro-denominated stablecoin market, by contrast, is considerably smaller at around $200M USD, led by Stasis EURS.

Why use stablecoins?

Designed for our increasingly global economy, stablecoins solve a few key problems that inhibit the exchange of money and thus could make the financial system more efficient and more inclusive.

Number one. Stablecoins enable fast and low-cost payments.

Number two. Stablecoins make cross-border payments easier.

Think about sending money to a friend abroad, who uses a different international bank account and currency. Stablecoins can be sent globally to anyone with a cryptocurrency wallet right on their phone.

Number three. Stablecoins are programmable.

Number four. Stablecoins make peer-to-peer stable value transfers possible at scale.

Number five. Stablecoin can be used as a native currency in the blockchain ecosystem, for instance you can purchase digital assets and to earn passive yield in Decentralized Finance with stablecoins.

So what are the potential drawbacks of stablecoins?

For one, we need clear legislative guidance from regulating bodies and governments on their application. Progress is being made, the “Markets in Crypto-Assets,” MiCA framework, was published by the European Council in October of 2022. MiCA aims to regulate and make the post-trading of crypto assets more secure within the EU member states, including for stablecoins.

The main drawback of stablecoins is counterparty risk. Centralized stablecoins issued by single companies or organizations may come with counterparty risk associated with the issuer. Does the entity really have the collateral it claims to have? It's necessary to understand who is backing the stablecoin and what assets they hold. To mitigate this risk, sound regulations like MiCA can help address the concern. Trust in the issuer and the reserve manager is crucial. These reserves are maintained to provide confidence to the users of the stablecoin that they can redeem their stablecoins for the underlying assets at any time.

Over the past several years, we’ve seen fast adoption of stablecoins, given that they allow value to move globally and efficiently. This includes real-world use cases like treasury management, international B2B, cross-border remittances, and e-commerce, among other payment flows.

The primary use case for stablecoins during this earliest phase of their adoption has been transacting in cryptocurrencies on both centralized platforms and on decentralized platforms – denominating asset pairs on exchanges and earning passive yield for investors in DeFi, for instance.

These stablecoins serve a foundational role in the digital asset economy. The primary settlement asset, the source of liquidity, and also the on and off ramps between traditional and crypto markets. And despite the broader crypto market drawdown in 2022, stablecoins set a record of $7.4 trillion, that’s € 6.8 trillion, in annual settlement volume, a 600% increase from 2020.

Today, Stablecoins represent about 10% of the total $1.2 trillion US dollar market cap of digital assets. Dollar-denominated stablecoins have so far dominated, accounting for more than 99.9% of total market capitalization, with two of the most popular stablecoins being Tether, USDT, and USD Coin, USDC. Euro-denominated stablecoins represent the second largest segment, but their value is still diminutive relative to the dollar.

Historically, stablecoins have primarily facilitated trading on centralized exchanges, but demand for stablecoins continues to increase as a tool for leverage, risk management, savings, and other financial activities. Watch our next lecture on DeFi to learn more about that. Broadly speaking, stablecoins have been and continue to be one of the most effective and adopted use cases for public blockchains.

In Summary:

Stablecoins are a type of digital asset where their value is pegged 1:1 to a reference asset.

Collateralized stablecoins can use a variety of types of assets as backing, from Fiat to Commodities or Cryptocurrencies, or other types of investments.

US dollar-denominated stablecoins have so far dominated, accounting for more than 99% of total market capitalization.

Counterparty risk. It is important that the reserves to back stablecoins are transparently known with clear regulations for the issuer.

In a truly digital economy, stablecoins can offer an effective way to transact globally, combining the benefits of crypto networks with the price stability of widely accepted fiat currencies.