

## Stablecoins: Understanding Counterparty Risk

Sarah Olsen

October 18, 2018

If you're one of the estimated ten million Americans who owns cryptocurrency or who simply follows the evolution of the digital economy, you've probably noticed a proliferation of a new kind of digital asset, referred to as a "stablecoin", entering the market.<sup>[1]</sup> Avid crypto-traders, trading bitcoin, ether, and countless other cryptocurrencies globally, understand the need for these stable-value digital assets; however, to the average person, a stablecoin may be as foreign as the concept of cryptocurrency itself.

Stablecoins: What are they and why do they matter? A stablecoin is a cryptocurrency pegged to a stable asset such as fiat currency or gold. Most stablecoins are asset-backed, partially or fully collateralized by the value which they represent. Stablecoins are distinct from other types of cryptocurrency, like bitcoin, where the price is driven by market dynamics and not by another asset backing its value. In order to understand the importance of a stablecoin, one first needs to understand the importance of cryptocurrency.

Traditional cryptocurrencies, such as bitcoin, are digital assets that are issued by, and transmitted through, open source protocols of peer-to-peer networks. These networks are decentralized and do not rely on governmental authorities or financial institutions to create, determine, or validate the value transmitted. The networks host the decentralized public transaction ledgers, known as "blockchains," where all transactions are recorded. The blockchain is maintained and secured by the computers of each network participant known as "nodes" that run the network's software. Cryptocurrencies, like bitcoin and ether, are simply the units of value transmitted within these networks.

There are several inherent features distinct to cryptocurrency, but arguably the most profound element is its decentralized, permissionless nature. Anyone in the world with Internet access can participate in this digital economy. This is not particularly life-altering for those in developed countries with easy access to traditional banking; however, for the 1.7 billion adults globally without access to a bank account or those living in countries with economic and political instability, a globally accessible and recognizable digital value is revolutionary.<sup>[2]</sup> More than that, cryptocurrency enables value to be transmitted globally within minutes or even seconds versus the multiple business days often required to send an international wire through the traditional banking system.

Cryptocurrency is still a very nascent asset class, with the Bitcoin white paper first introduced less than ten years ago in November 2008 by a programmer or group of programmers under the pseudonym of Satoshi Nakamoto.<sup>[3]</sup> Since then thousands of other cryptocurrencies have emerged; however, the market is still immature and even the largest cryptocurrencies by market capitalization often experience significant intraday volatility. This makes it difficult to use assets, like bitcoin, as an everyday medium of exchange. Moreover, there exists underlying friction converting cryptocurrency to fiat currency, as cryptocurrency trades 24/7, 365 days a year and fiat currency can only move during traditional banking hours. Stablecoins bridge this gap.

A fully collateralized, fiat-backed stablecoin, like the [Gemini dollar](#), enables the value of fiat to move as quickly and as seamlessly as cryptocurrency. It effectively creates a digitized dollar on the blockchain. However, stablecoins are only as stable as the assets (and accessibility to those assets) backing them. In between this digitized value and the assets securing that value exists multiple layers of counterparty risk often misunderstood by the users of these digital instruments. In order to have an asset where the value is secured by another asset, there must be a high level of certainty that the backing asset actually exists and can be redeemed quickly, with little to no operational friction. To date, many stablecoins, such as Tether, have not provided transparency, failing to illustrate that the stablecoins in circulation are backed by corresponding dollars. Furthermore, users do not even know where the dollars are being held in order to assess the counterparty risk of the banks holding the fiat currency. As the subprime mortgage crisis taught us, credit risk exists to even the most highly regulated financial institutions. Not all balance sheets are created equally.

Stablecoins also have an additional layer of counterparty risk, aside from the financial institutions custodialing their underlying stable assets. Stablecoins are created and issued by firms with expertise in cryptocurrency and writing “smart contracts” (i.e., the code that governs a stablecoin, including its ledger and transfer). These firms are often both the issuer and redeemer of the stablecoin, acting as an intermediary between the stablecoin users and the financial institutions holding the underlying stable assets. This creates an additional point of risk to accessing the underlying assets. Imagine you’re holding gold at a bank, but the vault can only be accessed by a third-party security company who has the keys. This creates counterparty risk to both the bank and the security company. This is similar to stablecoin issuers who do not disclose where the underlying stable assets are held. Many cryptocurrency firms issuing stablecoins do not have appropriate licenses to do so and as a result there are no well understood legal processes in place in the event of insolvency. This means if the issuer goes out of business due to bankruptcy or some other reason (such as an enforcement action), the users of stablecoins issued by an unlicensed issuer have no way to access the underlying stable assets. It’s necessary to underwrite the counterparty risk of both the stablecoin issuer and the institutions custodialing the backing assets.

Lastly, it’s important that stablecoin issuers are engaging the appropriate service providers to ensure compliance and best practice. All stablecoin issuers should have reputable firms providing regular financial examinations of the bank accounts custodialing the underlying stable assets, as well as firms with the appropriate expertise auditing the smart contract code of the stablecoin. Stablecoins are financial instruments that should require regulation and oversight of the asset, the issuer, and their banking partners, in order to appropriately protect end users utilizing this digital asset.

Gemini Trust Company (Gemini) is a regulated trust company under the supervision of the New York State Department of Financial Services (NYDFS) and is required to adhere the New York Banking Law. The NYDFS regulates both Gemini as a firm, including capital reserve requirements, as well as the issuance of the Gemini dollar. Gemini publicly discloses all banking partners and provides financial audit and smart contract audit attestation reports on a regular basis.

Regulation and transparency are paramount to mitigating counterparty risk in order to protect stablecoin users. Unfortunately, many stablecoin issuers lack the appropriate licensing and fail to provide adequate transparency for users to appropriately assess risk. A digitized currency with a stable value on the blockchain is a huge step forward for the future of money, but it requires the appropriate counterparties and oversight to ensure its true stability.

---

<sup>[1]</sup> <https://www.cnn.com/2018/03/16/why-just-8-percent-of-americans-are-invested-in-cryptocurrencies- .html>

<sup>[2]</sup> <https://www.forbes.com/sites/niallmccarthy/2018/06/08/1-7-billion-adults-worldwide-do-not-have-access-to-a-bank-account-infographic/#c9699424b011>

<sup>[3]</sup> <https://bitcoin.org/bitcoin.pdf>