How **Stablecoins** Support an Open Financial System

History & Overview of Stablecoins,
Their Benefits for the Global Economy &
Regulation and Reserve Practices

PAXOS

Table of Contents:

Introduction	3
Overview & History	4
Benefits of Stablecoins	8
Regulations & Reserve Practices	9
Conclusion	13

INTRODUCTION

Pegged to stable assets such as the US dollar or commodities like gold, stablecoins were originally created for crypto investors to have an easy on- and off-ramp between fiat currencies and crypto, letting them settle trades instantly.

Stablecoins possess the best qualities of crypto and fiat currency, since they provide price stability and a steady valuation while offering the security and decentralized features associated with crypto. Early adopters primarily used them to hold and transfer value on crypto exchanges as well as earn yield in high interest-bearing accounts and DeFi through lending and providing liquidity.

While these use cases are still relevant (and seeing increasing rates of adoption), it's become apparent that stablecoins can help address massive pain points in the broader financial system. By letting unbanked individuals around the world access US dollars, providing a way for people in countries with high inflation to hold their wealth in USD, and enabling instantaneous, cost-effective settlement and international transfers, stablecoins are providing key financial services and making the financial system more inclusive.

Because of those use cases and others, adoption of stablecoins is accelerating rapidly, with the total outstanding balance of fiat-backed stablecoins at $154B as of March 2022.[1]

In the pages that follow, we'll cover the history of stablecoins, how they benefit the financial system and the regulatory landscape.

[1] Messari

OVERVIEW

A Brief History of Stablecoins

Backed by a reserve asset like a fiat currency or a commodity, stablecoins are a class of cryptocurrency pegged to a stable value. For example, by definition, a US-dollar-backed stablecoin can be exchanged for a dollar from a trusted issuer.

There are four categories of stablecoins:

1

Fiat-backed

The most popular type of stablecoin, these are pegged to a government-issued currency, such as the US dollar or the Euro.

USDP USDC USDT BUSD CBDC

2

Crypto-backed

Backed by crypto assets as collateral, these maintain a consistent value through algorithmic adjustments, based on supply and demand.

DAI

3

Commodity-backed

These are pegged to the spot price of commodities, such as gold or silver.

Pax Gold DGX

4

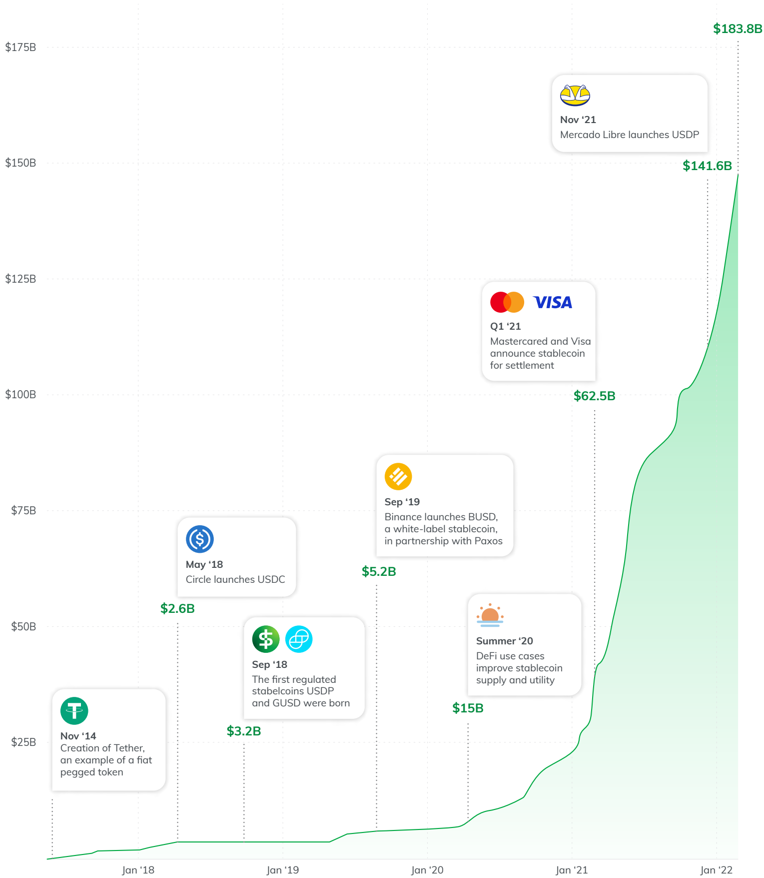
Algo-backed

A newer class of stablecoins that do not have any associated collateral; the algorithm behind the stablecoin sets the rules for balancing its supply and demand.

UST

Tether (the first stablecoin) was created in 2014, and, since then, adoption of stablecoins has accelerated across the government, financial and technology sectors.

Key milestones in stablecoin history and total stablecoins market cap[2]



[2] CoinMarketCap: Total Stablecoin Tokens by Market Capitalization

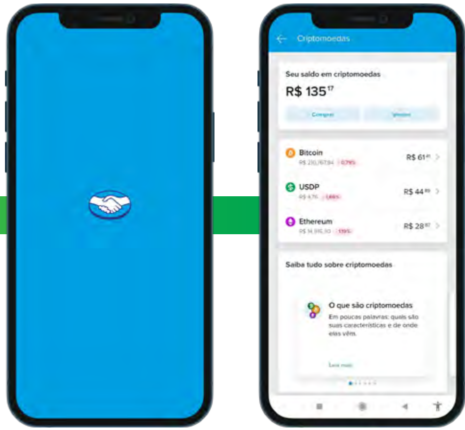
2021 was the year when mainstream financial services firms started adopting stablecoin in significant ways.

In 2018, there were a number of key stablecoin milestones. First, Circle launched USDC, and then the first regulated stablecoins, USDP (launched by Paxos) and GUSD (launched by Gemini), were born. Regulated stablecoins have a prudential regulator, which, in the case of USDP, BUSD, and GUSD, is the New York State Department of Financial Services.

Between 2018 and 2019, stablecoins were adopted for two main use cases: to store value digitally on the blockchain and to move value between different centralized exchanges. To support the latter goal, the world's largest crypto exchange, Binance, launched a white-label regulated stablecoin called BUSD in 2019, in partnership with Paxos.

Next, in the summer of 2020, when the total stablecoin market cap was hovering around $15 billion, the emergence of DeFi protocols created more utility for stablecoins and helped fuel adoption.
For example, through new decentralized protocols, users gained the ability to obtain yield for lending out stablecoins in a permissionless way.

2021 was the year when mainstream financial services firms started adopting stablecoin in significant ways. In the first quarter of the year, MasterCard and Visa started using stablecoin for financial settlement (through a solution powered by Paxos, MasterCard now lets customers make payments in stablecoins from their debit cards, while merchants—and MasterCard themselves—receive fiat on the backend.) Then, in late 2021, Meta/Facebook's crypto wallet Novi



Mercado Pago app interface showing stablecoin USDP

began letting users store and send money with USDP (powered by Paxos) and the Latin American e-commerce giant Mercado Libre launched USDP to its Brazilian users. As of March 2022, the market capitalization of stablecoins had reached $183.8 billion.

Another important part of the stablecoin universe is central bank digital currencies (CBDCs). These are pegged to a nation's government-issued currency and represent a direct obligation of that country's central bank—rather than a private company's obligation, as with other stablecoins.

China, Sweden and the Bahamas were some of the earliest adopters of CBDCs, and an increasing number of countries are exploring them. In September 2021, seven central banks laid out a potential operating manual for adopting CBDCs, including banks in the US, UK and Japan as well as the European Central Bank. Nigeria made headlines by launching eNaira, a CBDC pegged to the country's currency naira, in October 2021.

STABLECOIN BENEFITS

Supporting an Open Financial System

While early adopter use cases are still relevant and seeing accelerating rates of adoption (especially within online gaming ecosystems and the nascent metaverse), stablecoins have more recently crystallized as a tool for addressing pain points in the financial system.

Here are four ways this is happening:

Financial inclusion

Stablecoins let people without a USD bank account access US dollars, since anyone with a mobile device and an internet connection can leverage US-dollar-backed stablecoins to store and send money. This is important, since 1.7 billion adults globally were unbanked in 2017[3], including 14.1 million unbanked adults in the US (or 6.5% of US households.)[4]

Efficient money movement

Stablecoins remove friction from the process of sending money, especially for international remittances. Compared to traditional wire transfers, stablecoin transfers are instantaneous and cost-effective—and can happen 24/7.

Protection of wealth

Stablecoins can offer financial stability in countries with high inflation. For example, Paxos's partnership with Mercado Libre enables its users to convert Latin American currencies to Paxos' US-dollar-backed stablecoin USDP. In other words, people can hold their wealth in USD to hedge against inflation—without having access to elite bankers.

[3] The Global Findex Database 2017
[4] 2017 FDIC National Survey of Unbanked and Underbanked Households

Instantaneous Settlement

Merchants who accept stablecoins can immediately access funds instead of waiting days for payments to land in their bank accounts. Instantaneous settlement of transactions eliminates high capital requirements across the entire payments value chain.

Finally, stablecoin infrastructure enables interoperability between financial system providers and partners. Moving money within the current system is slow and difficult, but stablecoins enable instantaneous data and money transfer. Blockchain-based systems are interoperable and can easily work together, removing the multi-day barriers to transactions that currently exist. The infrastructure behind stablecoins encourages and allows the creation of products that are simply not possible within today's legacy architecture.

REGULATORY LANDSCAPE

Stablecoin Oversight and Reserve Practices

When it comes to stablecoins, regulators' primary concern is run risk, or the possibility that all holders of a stablecoin would try to redeem their holdings for fiat at the same time.

If a stablecoin is backed by US dollars held in cash reserves overseen by a prudential regulator, there isn't meaningful run risk; if everyone redeemed their stablecoins at once, every stablecoin holder would receive their equivalent in dollars. However, if a stablecoin's reserves are even partially held in illiquid or volatile assets and stablecoin holders tried to redeem their stablecoins for dollars at the same time, the issuer would be forced to sell the reserve assets at a discount.

Regulated Stablecoins

Only 3 regulated stablecoins exist:

- USDP
- BUSD
- GUSD

Regulated by the New York Department of Financial Services, which ensures compliance in:

- Stablecoin reserve composition
- Amount of reserve funds
- Segregation of corporate assets

Unregulated Stablecoins

Top unregulated stablecoins by market cap:

- USDT
- USDC
- UST
- DAI

Lack of a prudential regulator means:

- No reserve composition requirements
- No reserve oversight
- Assets held on issuers' balance sheets

This could happen if stablecoin holders know that reserve assets are illiquid and the market becomes aware of increased redemptions. Stablecoin holders might rationally try to redeem their stablecoins for dollars before the reserves are depleted, which creates even more pressure on the stablecoin issuer to liquidate assets at greater discounts. Depending on the asset type, broad-based sale at increasingly high discounts can impact the stability of the market for the reserve assets. That type of run risk can spread across stablecoin issuers, or to other types of financial institutions that the market believes have similar risk profiles.

There are only three regulated stablecoins in the market, USDP and BUSD (both issued by Paxos) and GUSD (issued by Gemini), and all three are overseen by the New York State Department of Financial Services. With a focus on minimizing run risk, the NYSDFS regulates, among other things, the following aspects of stablecoins it supervises:

Stablecoin reserve composition
The value of each stablecoin token must be tied directly to the value of the US dollar. Reserves can only be held in cash and cash equivalents (e.g., FDIC-insured bank accounts and short-term maturity US Treasury instruments.)

Verification of amount of reserve funds
Reserve funds must always be equal to or exceed the number of issued stablecoins.

Segregation from corporate assets and protection of assets
Reserves held by a regulated trust are fully segregated from corporate assets (specifically for the benefit of token holders)—and must be held bankruptcy-remote.

Many other stablecoins market themselves as regulated without fulfilling these requirements. Unregulated stablecoin issuers typically have money transmitter licenses (MTLs), offering some consumer protection. They're also often registered with FinCEN (an office of the US Department of Treasury), an entity concerned with money laundering, which means they're required to file Suspicious Activity Reports (SARs).

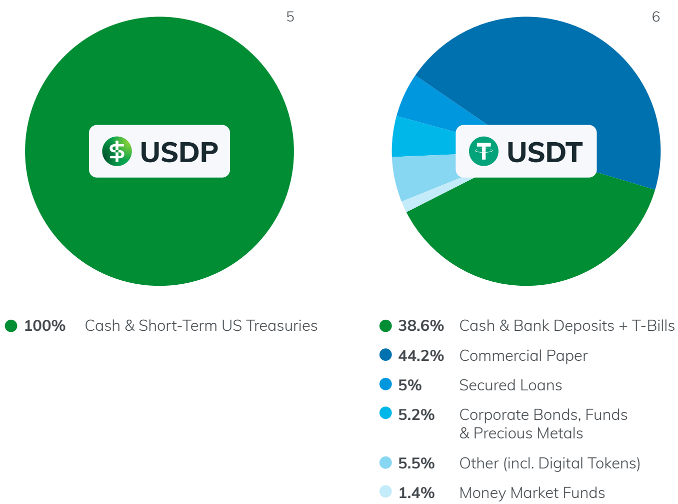
However, these issuers aren't required by a regulator to maintain stablecoin reserves that equal or exceed outstanding tokens, which means they might have fewer dollars in their reserve accounts than they have tokens outstanding at any given time. Second, they can keep illiquid or risky assets in their reserves, meaning that even if the amount in reserves equaled or exceeded the number of tokens outstanding, the issuer might have to sell reserve assets at a discount.

As a result, stablecoin holders might get less than their whole dollar back in the event they all decided to liquidate their holdings at the same time.

Finally, unregulated stablecoin reserves are held on issuers' balance sheets, so if the issuer went bankrupt, stablecoin holders would be creditors of the insolvent estate just like everyone else the issuer owed money to. In that event, reserves would probably be used to satisfy company debts instead of being returned to stablecoin holders.

While unregulated stablecoins can choose to keep their reserves in cash or cash equivalents, there is no prudential regulator forcing them to maintain this reserve composition over time. The stablecoin issuer could change their reserves at any point in the future.

Stablecoin Reserve Practices - USDP v USDT



[5] USDP Attestation reports, March 2022
[6] USDT Attestation reports, February 21, 2022

CONCLUSION

Stablecoins offer users the best of both crypto and fiat worlds.

Stablecoins enable instant transactions from anywhere in the world and at any time of day, as with other cryptocurrencies, while reliably holding their value. Consumers can have immense confidence in regulated stablecoins where there's oversight over reserve composition, the amount of reserve funds and segregation from corporate assets.

As mainstream adoption of stablecoin scales, we're seeing four important benefits for the financial system:

Financial inclusion
Stablecoins give unbanked individuals from around the world access to US dollars.

Efficient money movement
Stablecoin transfers are instantaneous and can happen 24/7, which is game-changing for international remittance.

Protection of wealth
Stablecoins let people in countries with high inflation store their wealth in USD as a hedge against inflation.

Payments for goods and services
Transactions are immediately settled so that merchants don't have to wait days for funds to land in their bank accounts. Instantaneous settlement eliminates high capital requirements across the entire payments value chain.

PAXOS

Paxos is the first regulated blockchain infrastructure platform whose mission is to replatform the financial system to enable assets to instantaneously move anywhere in the world, at any time, in a trustworthy way.

"Stablecoins can revolutionize consumer finance and open access to critical financial services."

- Charles Cascarilla
CEO and Co-Founder of Paxos

Using technology to tokenize, custody, trade and settle assets, Paxos builds enterprise blockchain solutions for institutions like PayPal, Mercado Libre, Nubank, Bank of America, Credit Suisse, Societe Generale and IBKR.

As a top-funded fintech company with more than $540 million raised from leading investors including Bank of America, Oak HC/FT, Founders Fund, Declaration Partners, Mithril Capital and PayPal Ventures, Paxos is powering transparent, trusted and transformative financial solutions.

To learn more about stablecoins and how they can help your business grow, contact usdp@paxos.com.