**Stablecoins Analysis**

**May 2020**

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***Abstract:*** *Stablecoins have emerged as a major use case for public blockchain networks and have exploded in growth over the past 2 years. Their initial use cases include crypto-native settlement and trading, but are rapidly expanding into a true alternative to fiat currencies in terms of wealth storage, payments, and remittances. The Crypto Stablecoin landscape is broad, with many different providers providing the back-end support for the capabilities required in a stablecoin issuance process. In this piece, we take a look at stablecoins as a sector, and explore how crypto providers differ in their approach towards supporting them.*

# Major Stablecoin Themes / Takeaways

Stablecoins have undergone tremendous growth over the past 3 months, growing nearly 70% from $5.7B to $9.7B by May 2020. There are a few notable trends to provide context for this growth:

* Growth in Tether: Tether has received the bulk of this growth, and now [represents 85% of the entire stablecoin supply ($8.2B).](https://www.theblockcrypto.com/genesis/63856/stablecoins-spearheaded-by-tether-are-at-nearly-10b-as-transaction-volume-hits-all-time-highs) It’s a very popular trading pair for exchanges and OTC desks globally. As a somewhat unregulated offshore entity, Tether can be bucketed into a separate category from its more regulated counterparts – notably USDC and PAX.
* Regulated vs. Unregulated It’s likely the stablecoin will continue to be more bifurcated into regulated (USDC, Libra, Celo) stablecoins vs. unregulated (Tether). While Tether has achieved the most absolute growth, USDC and PAX have grown nicely since launch in 2018, with USDC growing to $750m and Pax growing to $250m. New stablecoin launches (e.g. Libra or Celo) are all being done with a strong focus on regulation, and are focused on a consumer adoption, predominantly in cross-border payments.
* New stablecoin launches: We anticipate many new stablecoins to launch over the next 1-2 years. Libra and Celo are two of the most notable 2020 launches, but the largest global exchanges such as Binance, Huobi, and Coinbase have all issued their own stablecoins recently. It’s likely exchanges and issuers will continue to launch their own stablecoins in the short-term, with consolidation likely in the longer-term. As the acceleration towards digital payments and transfer accelerates, stablecoins are poised to be a major component.
* Ethereum Dominant: 78% of stablecoins are [issued on Ethereum.](https://www.theblockcrypto.com/linked/62550/ethereum-based-stablecoins-market-capitalization-has-nearly-doubled-year-to-date-to-6-25b) Tether, USDC, HUSD, BUSD, and PAX are all ERC-20 tokens. Tether is supported on multiple blockchains (Omni, Tron, Ethereum), but is increasingly being issued on top of Ethereum.

# The Necessary Components of a Stablecoin Project

1. **Custody:** Due to the risky and operationally intensive nature of cryptoassets custody, sophisticated investors prefer to store their assets with an independent third party. The SEC’s qualified custodian rule also mandates this – as a result a set of crypto-specific custodians have emerged as the main providers of these services. These companies include crypto-native startups like Anchorage, BitGo, Coinbase, and Xapo, as well as legacy financial institutions such as Fidelity.

Institutional crypto custody has traditionally been simple – the secure, offline cold storage of coins. Clients store their coins with custodians for periods of time, and withdraw them to exchanges if they need to trade. Custodians typically charge ‘Assets under custody’ (AUC) fees, as well as transaction fees for the movement of coins off the platform.

As the crypto markets grow, the variety of services available to custody clients will expand to include built-in staking, brokerage, margin, and settlement products, but it all starts with securely storing crypto-assets. As such, it’s possible custodians will play a larger role compared to their role in traditional markets, and operate as the trusted vendor across a wider range of services.

1. **Issuance:** The creation and redemption of the stablecoin. Minting and burning is a major part of any stablecoin project – it must be done in an accessible, secure, and compliant manner. Key factors include the ability to build in permissioning at the smart contract level – how do you ensure programmability, auditability, and other necessary components of proper stablecoin usage? Additionally, can issuance be done through traditional cold storage custodial solutions, or will new stablecoin models require newer models of custody?
2. **Trading/Liquidity**: The ability to buy and sell assets is a core function in crypto markets. There are many models in the crypto world, ranging from exchanges to OTC to smart order routing systems. A customer’s preference for execution method depends largely on the size and frequency of trades. There are some small edges to be gained in execution, but it’s becoming a more commoditized service with declining fees for the middlemen involved.

Going forward, the crypto execution landscape will continue to undergo evolution. Offerings will become more electronic, and efficient, resulting in more sophisticated market participants and lower spreads. Dark pools could emerge, offering investors the execute without information trickling back to public markets until after the fact. Additionally, agency-based aggregation services will continue to grow in popularity, as customers seek to lower the admin and operational costs to using many different exchanges and OTC desks.

1. **Staking**: Proof-of-stake is an emergent method of securing new public blockchains. In traditional proof-of-work involves systems, miners purchase hardware and create massive data centers to process transactions and receive transaction fees and block rewards. Proof-of-stake systems require coin-holders to ‘stake’ coins in a smart contract, which allows them to process transactions and receive new issuance and transaction fees. The underlying stake is designed to create a ‘skin in the game’ so coin-holders process transactions honestly and securely.

Staking itself is built-in economic redistribution that is designed to incentivize coin holders to participate in the long-term security of proof of stake networks. New coins are created to pay validator nodes who process transactions and/or participate in governance, while non-stakers who don’t participate are diluted. A specialized industry focused around providing outsourced staking services has emerged, colloquially known as “staking as a service”.

Coin holders can delegate their ‘stake’ to a third-party validator, who stakes on their behalf, taking a portion of the rewards as payment. Relative to doing this in-house, these third-party services may offer a superior UX for voting and participation as well as uptime guarantees and/or network monitoring. Over the past year, many new startups aiming to provide these staking services have emerged.

Overall, a large factor of staking’s importance in a stablecoin’s project is dependent on the underlying architecture of the system, and the consensus and security protocols used.

1. **Other Areas**:
   1. Treasury Management – how is the underlying collateral (fiat) managed?
   2. Integrations – what services and 3rd party purchases can I use with the stablecoin?
   3. Settlement – the ease of moving funds on/off the platform.

# Comparison Matrix

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Company** | **Year Founded** | **Amount Raised** | **Own Stablecoin?** | **Stablecoin Network Value** | **Core Focus** | **Custody** | **Trading** | **Margin** | **Native Staking Support** | **Issuance** |
| **Anchorage** | 2017 | $60M | No | N/A | Crypto Prime Services | Yes | Yes | Yes | Yes | Yes |
| **BitGo** | 2014 | $67M | No | N/A | Crypto Prime Services | Yes | Yes | Yes | No | Yes |
| **Circle** | 2013 | $250m | Yes – USDC | $700M | Stablecoins | Yes | Yes | No | No | Yes |
| **Coinbase** | 2012 | $800m | Yes – USDC | $700M | Brokerage | Yes | Yes | Yes | Yes | Yes |
| **Paxos** | 2012 | $90m | Yes – PAX | $250M | Financial Services | Yes | Yes | No | No | Yes |
| **TrustToken** | 2017 | $30m | Yes - TUSD | $140M | Stablecoin | No | No | No | Yes | Yes |

In this section, I look at the major entities operating in the stablecoin space, and their capabilities.

Anchorage is well suited for stablecoin issuance. They are a highly technical team, and differ in their reliance on hardware security module (HSM) technology for custody means they can allow for stablecoin participation, permissioning, and automation on the smart contract level in a way that can’t be done with traditional cold storage.

BitGo is a crypto custodian that has expanded into many new verticals such as trading, settlement, and margin. BitGo would be well suited for stablecoin issuance as well, having done issuance for security tokens in partnership with Securitize.

Circle has refocused its core business on stablecoins, sunsetting its other products (exchange, OTC). Its USDC product is a market leader in the regulated stablecoin space, and its seeing increasing adoption and usage across crypto exchanges and platforms.

Coinbase remains a major player in the crypto ecosystem, and USDC is becoming an increasingly large part of its core business. They have all the pieces in place for supporting stablecoins, and have been focusing more resources on them recently.

Paxos is a full-stack crypto financial services company well suited for stablecoin. In addition to having custody and brokerage, they’ve already built out stablecoins for themselves and customers (e.g. Binance).

TrustToken is a pure stablecoin issuer with their own stablecoin products. They rely on outside partnerships and integrations for custody, trading, and other services.

## Anchorage

**Blockchain Capital Commentary**

Anchorage is a newer entrant in the crypto financial services space, but has quickly built a reputation as a top-tier technical and product team. We’ve spent extensive time getting set up onto their platform and using the product. Their HSM-based custody solution provides the best UX solution for custodians we’ve seen to date, and we’ve been impressed by the ability for native staking and network participation as well.

With stablecoins specifically, Anchorage seems well-suited for stablecoin architecture. They have the core functions required (custody, trading, compliance), and are well suited to allow for the participation/permissioning needs of stablecoins. Additionally, the minting/burning that stablecoins require is all done via smart contracts – this requires active participation support, something that is difficult to do with traditional cold storage.

**Team + History**

Nathan McCauley (CEO, Co-Founder)

Diogo Monica (President, Co-Founder)

Co-Founders Diogo Monica and Nathan McCauley have been working on security engineering for ten years. They worked together at Square and Docker, where they providing the core infrastructure used by banks, governments, and cloud providers. In 2017, they began consulting with crypto funds on their self-custody solutions and procedures. Due to high demand and positive feedback, they created Anchorage to formalize their offering and expand to more clients.

Anchorage is now building an all-in-one crypto prime custodian to help facilitate the financialization of the cryptoassets markets. By using proprietary smart storage solutions, Anchorage is built to provide security, fast access to assets, and active blockchain participation. The result is an institutional custody solution that makes assets usable without compromising security. Anchorage is starting with custody as the core offering, before expanding into other areas of the prime services stack.

Anchorage has raised $60m in funding, and has a team of 60+.

**Stablecoin Capabilities**

Custody: Anchorage currently supports 30+ coins, including a variety of base layer protocols and ERC-20 tokens.

Trading: Anchorage brokerage allows for agency trading of 10+ coins.

Margin: Anchorage is rolling out a margin product that will allow clients to deposit crypto collateral in exchange for fiat.

Issuance: Anchorage’s platform allows for issuers to build in their own tokens and launch with the proper technology and compliance.

Staking: Anchorage’s reliance on HSM technology allows for native-staking of various crypto protocols, including Tezos, Cosmos, and Polkadot. With traditional cold storage, keys are not online and thus cannot be programmable for use cases like staking, governance, or permissioning.

Others: Beyond these core functions, Anchorage offers ancillary functions such as API support, settlement, auditing and reconciliation.

Licenses: Trust Company, Qualified Custodian,

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## BitGo

**Blockchain Capital Commentary**

BitGo is an experienced, longstanding company in the crypto custody and financial services space. They pioneered institutional crypto custody in 2013, and have since launched trading, margin, and settlement capabilities for their product. BitGo uses traditional cold storage for custody, with a separate hot wallet service for other needs. API support is one of their main products – this allows for third-party exchanges to utilize BitGo’s multi-sig technology for their own custody needs. We’ve used BitGo extensively in the past and continue to utilize them for custody.

BitGo has the core functions (custody, trading, compliance) for supporting stablecoin issuance and usage, and also has portfolio service support, tax, and API support. They could be a reasonable provider of stablecoins given their ability to support asset issuance.

**Team + History**

Mike Belshe (CEO, Co-Founder)

Benedict Chan (CTO)

Mike Belshe founded BitGo along with 2 co-founders (Ben Davenport, Will O’Brien) in 2013. Ben and Will have since departed the company, with Benedicat Chan becoming acting CTO. The leadership team has extensive experience in the crypto space, having been around since 2013 and multiple market cycles. They pioneered the world’s first multi-signature hot wallet for cryptocurrency, which remains widely used by exchanges and traders worldwide.

BitGo has raised $70m+, and has a team of 60+ people.

**Stablecoin Capabilities**

Custody: BitGo uses traditional cold storage technology for secure, institutional-grade custody. BitGo offers a separate hot wallet service for clients with different needs.

Trading: BitGo offers access and connectivity to outside OTC desks for brokerage.

Margin: BitGo has a partnership with Genesis Capital for margin and lending capabilities.

Asset Issuance: BitGo offers support for digital securities and tokenization. They have partnered with Securitize, Harbor, and Polymath for security tokens, but seem to be early in their stablecoin exploration.

Settlement: BitGo provides riskless, off-chain trades and transfers to its partners to allow for efficient trade clearing and settlement.

Others: Beyond these core functions, BitGo offers built-in support for tax, auditing, portfolio analysis, and other administrative functions that a stablecoin would need.

## Circle

**Blockchain Capital Commentary**

Circle has experimented with many verticals in crypto, from brokerage to exchange to payments to stablecoins. The core focus of the company is now growing USDC, allowing for minting/burning, payments, wallet supports, and creating business accounts. USDC is now the largest ‘regulated stablecoin’, amassing over $750m market cap.

Though still far behind the market leader Tether, Circle’s relative success demonstrates it has the tools in place for support and issuance of stablecoins. Overall, Circle is the driving force behind Centre, and is focusing its efforts on increased B2B adoption of it. Because of their longtime tenure in the space, Circle has also amassed a substantial amount of licenses.

**Team + History**

Jeremy Allaire (CEO)

Circle has a long history in the crypto space, having been founded in 2013 by Jeremy Allaire and Sean Neville. It’s had a wide range of retail and institutional products, with varying degrees of success in each. Over the past year, Circle has reduced headcount to <100 and focused the bulk of its efforts on USDC.

Circle Product Line History:

* Circle Pay (2014-2019): Allowed customers to buy/sell BTC as well as P2P payments across markets. Circle sunsetted the payments product in Q3 2019.
* USDC (2017 – Present): Circle is refocusing much of its original payments platform on its USDC efforts.
* Circle Trade (2016-19): OTC crypto trading desk. Highly profitable in 2017,18 but increased competition resulted in a sale in 2019.
* Poloniex (2017-19): Crypto Exchange. Volume fell off post-acquisition, resulting in a sale in Q4 2019.
* SeedInvest (2018- Present): A crowdfunding platform and marketplace for startups with a registered B/D and ATS applicant.

**Stablecoin Capabilities**

Custody: Circle has in-house custody solutions for their USDC, which is also supported on multiple 3rd party wallets, exchanges, and platforms. Circle’s in-house custody solution relies on traditional cold-storage solutions.

Trading: Circle has sold its OTC desk and exchange.

Margin: Circle does not offer Margin.

Staking: Circle does not offer staking support.

Issuance: Circle offers a simple web app for customers to tokenize fiat currency into USDC. They have released the open source framework used in the process, as well as the underlying code for their USDC product.

Licenses: Domestically, Circle has state MTLs and a NYDFS BitLicense.

## Coinbase

**Blockchain Capital Commentary**

Coinbase is a leading crypto company, and has expanded from its initial wallet and brokerage service into launching a full-scale platform with exchange, margin, staking, and USDC support. In recent years, they have focused on supporting new assets and international expansion.

Overall, Coinbase has all the necessary functions for a stablecoin rollout, and have successfully integrated them into growing USDC. While still a small part of their overall business, USDC is becoming an increasing area of focus for them. Coinbase is a major part of Centre, the USDC consortium they formed with Circle. Coinbase provides native minting/burning support for USDC from its platform, and provide custody and trading support for USDC as well. Coinbase has a small ‘USDC bootstrap fund’ to increase retail adoption for USDC, with a focus around ‘open finance’ use cases.

**Team**

Brian Armstrong (CEO, Co-Founder)

Emilie Choi (COO)

The Coinbase team is an experienced, savvy team that has effectively scaled their platform to become the leading US crypto company. They’ve maintained a solid reputation, with a focus on regulatory standards, compliance, and security (no hacks ever). Currently, Coinbase has a headcount of 500+ worldwide.

Coinbase has a headcount of 500+.

**Stablecoin Capabilities**

Custody: Coinbase uses traditional cold-storage techniques for in-house support.

Trading: Coinbase offers a brokerage product as well as Coinbase Pro, an order book exchange.

Margin: Coinbase offers margin services on its exchange.

Staking: Coinbase offers staking rewards services for certain assets. It’s partially done in-house, and through a partnership with Bison Trails.

Issuance: Coinbase supports the minting/burning of USDC on its platform.

Licenses: State MTLs, NYDFS BitLicense, Trust Company

## Paxos

**Blockchain Capital Commentary**

Paxos is a full-stack crypto financial institution, and seem well positioned to service stablecoin issuers. While starting off as a pure exchange and trading product, they’ve since expanded their capabilities into custody, settlement, and asset tokenization. Their full stack solution makes seamless asset tokenization possible – in addition to their own stablecoin (PAX), they’ve already supported outside stablecoin issuances for Binance (BUSD), and have also provided brokerage capabilities to companies like Revolut.

**Team**

Charles Cascarilla (CEO, Co-Founder)

Paxos is a long-standing player in the crypto space, initially launching with its exchange ‘itBit’ in 2012. Since then, they’ve expanded into numerous new crypto products and services, including custody, asset tokenization and settlement. Over the years, we’ve been impressed by the Paxos’ team diligent progress and business acumen.

On the asset tokenization side, Paxos currently supports their own stablecoin PAX, Paxos Gold (PAXG), as well as a white-label offering for Binance (BUSD).

**Stablecoin Capabilities**

Custody: Paxos is a regulated custodian using traditional cold storage techniques.

Trading: Paxos operates itBit, an exchange and OTC desk.

Margin: Paxos does not offer margin.

Staking: Paxos does not support staking.

Issuance: Paxos currently supports its own stablecoin – PAX, with minting/burning from its website. Additionally, Binance issued BUSD by utilizing Paxos’ technology, and has already achieved over $150m of issuance.

Licnses: NYDFS BitLicense, NY Trust

## TrustToken

**Blockchain Capital Commentary**

TrustToken is focused on issuance and usage of its own stablecoins. They rely on outside third parties for custody and trading, and focus purely on the issuance aspect. It’s unclear the extent to which they can support 3rd party asset issuances on their platform, as their focus seems to be increasing adoption and usage of their own stablecoin TUSD.

**Team**

Jai An (CEO, Co-Founder)

TrustToken has a team of 30+, and has raised $30m+ across multiple funding rounds. Trusttoken’s progress has been steady, growing to over $130M.

**Stablecoin Capabilities**

Custody: TrustToken partners with outside custodians for crypto custody.

Trading: TrustToken does not have an internal liquidity or trading capability – they rely on outside partnerships and exchanges for liquidity.

Staking: Trusttoken has a smart-contract supported staking platform.

Issuance: TrustToken’s focus is tokenization – they offer 5 different fiat-pegged stablecoins, including TrueUSD, TrueGBP, TrueAUD, TrueHKD, and TrueCAD.