Bluechip

Stablecoin Safety Assessment

Coin	PayPal USD (PYUSD)
Date	10-10-2023
Overall Grade	A-

Factor Scores:

S. No	Factor	Score	Assessment
1	Stability	0.89	Stable
2	Management	0.84	Very low risk
3	Implementation	N/A	Not assessed
4	Decentralization	0.10	High risk (Not relevant to the grade)
5	Governance	1.00	Very low risk
6	Externals	N/A	Not assessed

Summary

- Paxos, the issuer of PYUSD, is regulated as a stablecoin issuer by the NYDFS, and therefore subject to stringent guidelines and monitoring requirements. PYUSD is identical in design to its siblings USDP and BUSD.

- PYUSD's reserves comprise overnight reverse repos collateralized by US Treasuries (97%) and cash (3%) in fully segregated accounts.

- PYUSD is designed to be institutional-grade, regulatorily compliant and customer protection-focused, but it is not an actively traded stablecoin. It is most suitable for (a) remitting, receiving, and holding funds on PayPal and (b) passive stablecoin holders who want to hold US Dollars but cannot or do not want to hold them in a bank account.

  PYUSD's rating can be upgraded from A- to A by:

  - disclosing its reserve custodians and the amounts held by them OR
  - maintaining a consistent, tight peg over a 180-day period

Evaluation

1. **Stability** [**Score 0.89**]

   1.1. **Reserves** [**Score 0.90**]

      1.1.1. Collateralization % and Type of Collateral [**Score 1.00**]
      As of August 31, 2023, PYUSD is fully backed by Overnight Reverse Repos backed by US Treasuries (97%) and cash (3%) in fully segregated and bankruptcy-remote accounts.

      1.1.2. Storage of Assets [**Score 0.70**]
      For off-chain collateral, we rank storage methods as follows (highest to lowest)
      - With regulated custodians in reputable jurisdictions
      - With regulated custodians not in reputable jurisdictions (e.g., BVI, Bahamas)
      - Others / Undisclosed

      PYUSD reserves are fully held in regulated and insured banks, and financial institutions in the USA. Further, each custodian has been pre-vetted by the NYDFS. We believe Paxos may use one or all the following banks, namely BMO Harris Bank N.A, Customers Bank and State Street Bank and Trust Company, in addition to banks within deposit placement networks such as IntraFi Network LLC and Reich & Tang Deposit Solutions LLC. However, we do not know how much is held by whom.

      1.1.3. Asset Segregation [**Score 1.00**]
      All customer assets in PYUSD's reserves are fully segregated from Paxos' corporate treasury and held in bankruptcy-remote accounts.

   1.2. **Market Feedback*** [**Score 0.70**]

      1.2.1. Frequency of Deviation Below Peg [**Score 0.70**]
      Number of Days where VWAP < Peg by 0.5% or more during the past 38 days (since inception) = 0

      1.2.2. Max Deviation Below Peg [**Score 0.70**]
      Biggest daily VWAP deviation below peg during the past 38 days (since inception): 0.13%

      1.2.3. Volatility (% per day) [**Score 0.70**]
      Daily volatility (%) during the past 38 days (since inception): 0.07%

      1.2.4. Downside Volatility in a Market Downturn [**Score 0.70**]
      Average deviation below peg during the 5 worst-performing days for BTC (DoD price change) in a

during the past 38 days (since inception) 0.01%

*Score restricted to 70% of maximum possible score as PYUSD has been in existence for less than 180 days.

1.3. Stability Mechanism [**Score 1.00**]

1.3.1. Core Mechanism [**Score 1.00**]

PYUSD relies on market participants to arbitrage differences between the market price of PYUSD and the net asset value of PYUSD (typically, $1 if PYUSD is fully-collateralized). We believe this is the most effective price stability mechanism.

When PYUSD trades below its peg, any user who has a KYC'd account with Paxos or PayPal can buy PYUSD in the open market for less than $1 and redeem it on Paxos for $1. This risk-less profit opportunity attracts more participants and eventually pushes the market price of PYUSD towards its peg.

1.3.2. Primary Liquidity Access [**Score 1.00**]

Retail and institutional users who possess a KYC'd account with Paxos can redeem PYUSD for US Dollars or other Paxos issued stablecoins. Alternatively, PYUSD can also be sold for US Dollars through the PayPal app and website.

2. Management [**Score 0.84**]

2.1. Restrictions [**Score 0.84**]

2.1.1. Known Core Teams [**Score 1.00**]

Paxos was founded and continues to be led by Charles Cascarilla (CEO and Co-founder) and Rich Teo (CEO, Asia and Co-founder).

2.1.2. Jurisdiction Score [**Score 0.68**]

Our jurisdiction scores are derived from the World Justice Project's Rule of Law (RoL) Index – which ranks countries. We specifically consider the index's factors 'Regulatory Enforcement' and 'Civil Justice'.

Paxos is headquartered in New York, USA.

2.2. <u>**Track Record**</u>

    2.2.1. Team's Background   [**Score N/A**]

    Not scored

3. Decentralization   [**Score 0.10**]

3.1. Regulatory Oversight   [**Score 0.00**]

Regulatory oversight increases the risk of censoring endpoints of the stablecoin's network (such as the issuer, banks, and custodians) as well as users. A score of 0 indicates a high degree of government censorship risk.

PYUSD's issuer, Paxos, is regulated by the NYDFS as a stablecoin issuer. Further, all custodians who hold assets on behalf of Paxos's customers are regulated financial institutions pre-vetted by the NYDFS.

Note: Censorship resistance is not a key objective common to all stablecoins. Consequently, a low score may not be a relevant source of concern to most stablecoin users. Furthermore, regulatory oversight can also be beneficial to some users as it entails more robust consumer protection mechanisms and increased transparency.

3.2. Custodian Risk   [**Score 0.50**]

When evaluating custodian risk (i.e., credit risk of entities holding assets), we consider the distribution of assets between entities that hold the assets, such as the issuer, their banks, and custodians.

Cash deposits are believed to be held by BMO Harris Bank, Customers Bank, State Street Bank & Trust Company and/or other banks within deposit placement networks such as IntraFi Network LLC and Reich & Tang Deposit Solutions LLC. However, we do not know the amounts by each of them.

3.3. Type of Collateral   [**Score 0.00**]

When evaluating decentralization, it is important to consider the extent to which the stablecoin's value is tied to a central authority or external fiat currency. Monetary policies / decisions taken by such authorities / central banks can have an impact on the purchasing power of the collateral.

PYUSD is fully backed by USD-denominated real-world assets which are subject to the monetary policies of the United States.

(Fiat currencies earn a score of 0 and decentralized cryptocurrencies earn a score of 1)

Note: Independence from a nation's monetary policies is not a key objective common to all stablecoins. Consequently, a low score may not be a relevant source of concern to most stablecoin users.

3.4. Decision Making & Voting Power   [**Score 0.00**]

Fiat-backed stablecoins such as PYUSD are run by private corporations. As such, the absence of decentralized decision making and voting power is a feature, not a bug.

3.5. User Blacklisting   [**Score 0.00**]

Paxos can blacklist specific user wallets.

Note: Censorship through blacklisting helps prevent legitimate users from transacting with criminals. This is particularly relevant to institutional users who are obligated to report their transactions and activities.

4. Governance   [**Score 1.00**]

4.1. Holder Protection   [**Score 1.00**]

PYUSD's issuer, Paxos, is regulated by the NYDFS as a stablecoin issuer. Under the NYDFS' guidelines, PYUSD is required to comply with the following:

- PYUSD reserves must be segregated from the proprietary assets of Paxos, and must be held in custody with (i) U.S. state or federally chartered depository institutions with deposits insured by the Federal Deposit Insurance Corporation ("FDIC") and/or (ii) asset custodians, approved in advance in writing by NYDFS.
- Hold reserves in asset classes pre-authorized by the NYDFS and within imposed limits
- Procure monthly attestations of reserves including (i) end of period reporting and (ii) one random day reporting.
- Annual attestation report by a US-licensed CPA pre-vetted by the NYDFS.
- Meet redemption requests from users within prescribed time limits.
- Such other conditions that may be imposed by the NYDFS on a case-to-case basis.

4.2. Periodic Reserves Attestations   [**Score 1.00**]

Our rating considers the type & frequency of reserves attestations.

Type [Score 1.00]

Attestations can be broadly classified into 2 categories based on the nature of the auditor's report. – 'Assurance Engagements' and 'Agreed Upon Procedures'.

Assurance Engagements are similar to audits in that the auditor determines the nature and extent of work required to express an independent opinion (provide assurance) on a particular matter. The auditor is free

to conduct as deep an examination as they may deem appropriate to arrive at a reasonable conclusion. Assurance Engagements require the auditor to stake their reputation, and therefore carry more weight. Assurance Engagements provide either a 'reasonable level of assurance' (also called examinations) or a 'limited level of assurance' (also called reviews). The former is better and offers the same level of assurance that is provided in a full-fledged financial audit but with a comparatively smaller scope and subject matter.

Agreed Upon Procedures are engagements wherein the auditor is engaged by the issuer to perform specific tasks and report on factual findings. The auditor's scope of work is limited by the issuer and does not involve expressing an opinion. Instead, the auditor provides factual statements in his or her report and the users of such reports are expected to form their own opinions on the matter. In such cases, the auditor does not stake their reputation and provide an assurance of any sort. AUPs, while useful, are inferior to Assurance Engagements.

Frequency [Score 1.00]

Reserves attestations can be monthly, quarterly, half-yearly or annually.

Since review procedures are performed on reserves data as of a particular day (typically, last day of the quarter), they do not consider transactions and events which occur in between reporting dates. Consequently, periodic reserves attestations provide a lower degree of assurance compared to a full scope financial audit.

Paxos has engaged WithumSmith+Brown, a CPA firm, to provide monthly assurance opinions on its reserves.

4.3. Financial Audits [**Score 1.00**]

Periodic reserves attestations alone are inadequate to ascertain the existence and adequacy of reserves, they need to be complemented by full scope annual financial audits.

As an entity regulated by the NYDFS, Paxos is required to furnish financial statements audited by an independent CPA. Although PYUSD is a recently launched stablecoin, the issuer has been audited before since it issues other stablecoins too.

4.4. Redemption Policy [**Score 1.00**]

Our scoring reflects whether stablecoin issuers have reasonable and transparent timelines for processing redemptions.

According to Paxos' Terms of Service:
"The Company will make commercially reasonable efforts to redeem your USD Stablecoins quickly. It may

take up to 1 business day for your Account balance to reflect the redemption" (Note - this represents the timeline for conversion of stablecoins to USD balances in customers' Paxos accounts)

"Withdrawals may take up to two (2) days to complete, provided that larger withdrawals may take substantially longer to complete." (Note - This represents the timeline for withdrawal of USD balances in customers' Paxos accounts to their personal bank accounts.)

According to the NYDFS Guidance on Stablecoins, "Timely" redemption means redemption not more than two full business days ("T+2") after the business day on which the Issuer receives a "compliant redemption order," meaning the business day on which (A) the Issuer has received a redemption order and (B) the holder or the holder's designee has onboarded successfully with the Issuer and all other conditions necessary to permit compliant redemption have been met.

In extraordinary circumstances, where DFS concludes that timely redemption would likely jeopardize the Reserve's asset-backing requirement or the orderly liquidation of Reserve assets, DFS has the authority to require or allow redemption that would not qualify as timely under item 1(b), as it deems necessary.

Based on the above, Paxos' policy seems to be compliant with the NYDFS' guidelines.