PAXOS Questionnaire

Questionnaire

Note: you can decline to answer certain questions (like marketing / go to market) which may be trade secrets and we will put in "declined to answer due to current trade secret".

a. General

   i. **Which blockchain / DLT are you building on top of?**

   Ethereum (ERC-20 Token)

   ii. **How does the stablecoin work?**

   Paxos Standard tokens are issued 1:1 against dollar deposits from customers, and are always redeemed 1:1 as well. Upon redemption, as dollars go back into circulation, the corresponding Paxos Standard tokens are immediately destroyed. The tokens are only in existence while dollars are held in reserve.

   iii. **What is the purpose of your coin? What does it aim to achieve and which problems does it solve?**

   Paxos Standard combines the stability of the dollar with the efficiency of blockchain technology. By exchanging USD for PAX, users are able to move money anywhere, anytime.

   One of the main problems PAX solves is the issue of trust within the stablecoin ecosystem. To start, Paxos is a Trust company, regulated by the New York State Department of Financial Services, with deep experience

as as intermediary between fiat and digital assets. Paxos Standard is the first digital asset issued by a financial institution and the asset was approved and is regulated by the NYDFS. PAX is fully collateralized by USD held in dedicated omnibus cash accounts at FDIC-insured U.S. banks.

Paxos Trust Company has engaged Withum, a nationally top-ranking auditing firm, to independently verify at specific points in time that the entire supply of Paxos Standard tokens is consistent with USD in reserve accounts at U.S. banks held and managed by Paxos. Withum performs month-end attestations of these accounts using standards established by the AICPA. Every attestation report that has been published since the launch of Paxos Standard can be viewed online.

Beyond being trusted, PAX also allows users to:

1. Hold digital assets in PAX to limit exposure to volatility
2. Settle the cash component of digital asset transactions in dollar- equivalent denominations
3. Move between digital assets with ease and lower fees
4. Settle transactions outside of traditional banking hours
5. Transact internationally more efficiently

    iv.   When we say something is stable what do you think it means? And when it comes to monetary policy specifically?

Our stablecoin is issued and redeemed 1:1 with the dollar, so it's fully collateralized. From our perspective, its stability is directly linked to the stability of the U.S. dollar and should not require independent monetary policy measures.

    v.   What is your revenue model?

Paxos does not charge fees upon Paxos Standard issuance, redemption or transactions. Paxos earns interest on dollar deposits that are held (in FDIC-insured banks) while Paxos Standard tokens are in circulation.

b. Launch & marketing
    i.   What does the market need to be confident in the stability of your token?

We believe the key factors are:

1. Government approval and regulation
2. Full 1:1 dollar collateralization with dollars held in US banks, both demonstrated by attestations from a well-respected auditor
3. Ease of redemption
4. Availability and liquidity on major, well-known exchanges

    ii.   How are you bootstrapping to that level of confidence?

We launched once we had approval from the NYDFS and could operationally support same-day redemptions. We publicly shared the first attestation report at the end of our first month in operation, and now, one month since launch, Paxos Standard is already available on 4 of the top 10 exchanges in the world: Binance, ZB, Gate.io and DigiFinex.

    iii.   What are your go-to-market strategies?

c. Economics
    i.   What is your coin stable with respect to?

Our coin is backed 1:1 by USD, and can be redeemed for USD at a rate of 1:1 at any time. Thus, it will always remain stable with the dollar, even in external markets.

ii. **How much volatility can this peg withstand? Is that the same for upwards and downwards pressure? How wide is the band of behavior it can support?**

Due to the availability of PAX pairs across multiple global exchanges and the ability for customers to always exchange PAX for USD at a rate of 1:1, any decoupling from the peg due to volatility will be short-lived as arbitrageurs take advantage of the discrepancies in the market.

iii. **How easy is it to analyze the band of behavior from which it can recover?**

N/A

iv. **How expensive is it to maintain the peg/stability mechanism?**

Because Paxos Standard is issued and redeemed 1:1 to the dollar, there are no other mechanisms needed to maintain the "peg."

v. **How transparently can traders observe the true market conditions?**

Market conditions are easily observed across various exchanges and exchange information aggregators. Additionally, since Paxos Standard is built on Ethereum, every transaction can be observed on the blockchain. Etherscan.io is an easy place to observe total volume and market pricing.

vi. **Which monetary theory (theoretical) assumptions do you think are not true and how does your protocol account for that?**

N/A

vii. **Does your stablecoin supply scale in response to demand? If so, how?**

The only way for the supply of PAX to increase is if a customer purchases PAX through our website by depositing an equivalent amount of USD. As demand grows, customers will either purchase more PAX through that channel, directly from Paxos, or from one of the many top global exchanges PAX pairs are listed on. If demand causes the price of PAX to rise above $1.00 on these exchanges, an arbitrage opportunity will present itself. Market makers could purchase PAX directly from Paxos at $1.00 and sell it on an exchange for slightly above $1.00 until the market is back at equilibrium. Either way, as demand grows, supply will grow with it.

viii. **Who provides the capital to maintain exchange rate peg? How are they compensated / Why do you think they would continue to lock up capital, given other investment opps?**

The exchange rate peg occurs naturally. If an arbitrage opportunity were to present itself, the market should react accordingly and push the value of PAX back to the equilibrium level of $1.00. There are several market makers who actively provide liquidity for PAX pairs on various exchanges. They make profit by means of the bid/ask spread, the same way they would making markets for any other asset.

ix. **An eventuality plan in case of a "black swan" event.· The 1% case will happen eventually.**

The premise of our coin relies on the stability and longevity of the U.S. dollar. If a black swan event were to have an impact on the U.S. dollar and its value as a whole, there is admittedly little we could do to influence those much more catastrophic market forces.

d. Tech
   i. **Are any novel consensus mechanisms used, over and above the underlying blockchain?**

Consensus is just by the underlying Ethereum blockchain. Our design strove for simplicity and interoperability with existing crypto infrastructure.

ii. **What transaction throughput can the blockchain currently handle and how does it plan to scale? Do its plans coincide with your plans for your estimated demand?**

Currently, Ethereum supports about 15 transactions per second. Scaling Ethereum (e.g. via the Casper effort to adopt Proof-of-Stake and later plans for sharding) is an area of active research and development. We estimate Ethereum will provide sufficient throughput in the near- and medium-term, but will also consider alternative blockchain networks in the longer term.

iii. **What tradeoffs does your protocol make and why did you make those tradeoffs? (supply/demand, temporarily peg breaking) (censorship resistance) (privacy tradeoffs) (accuracy of present market data and ease of manipulation of the data feed protocol uses (responsiveness of market and ease of manipulation)**

A fully USD-collateralized token is naturally resistant to market manipulation - it needs no feed of market data. Similarly, it needs no built-in supply/demand or peg-breaking mechanism: Demand for additional tokens is satisfied by converting more USD to tokens, and excess supply can be redeemed for USD.

iv. **Are there any centralized components of your system? Would any of these be easy for govs to shut down?**

The custody of USD collateral is necessarily centralized, and the United States government could shut down those operations by freezing bank accounts. However, we are an approved, regulated entity, making this unlikely, and we have multiple banking partners to prevent dependencies on any one partner.

v. **Does your protocol require information outside the blockchain such as a feed of price data? If so, how does this oracle work? Who manages it, what are the incentives for managing it, and what happens if the data they provide has a glitch?**

Our protocol does not require an oracle. We directly create and distribute tokens purchased with cash as soon as we deposit that cash into our reserve, and similarly remove cash from our reserve after destroying tokens sent for redemption.

vi. **Which participants can see which transactions? What is the data and metadata available, and to whom? How does this impact privacy?**

Transaction visibility is the same as other Ethereum transactions - all participants can see all transactions in full, and tools such as Etherscan make it simple to see all token movement between addresses. Privacy is limited to the pseudonymity of Ethereum addresses.

vii. **Are you doing anything with formal verification? Smart contracts used?**

We have undergone three third-party smart contract audits.

viii. **What is the rebase period? (Length of time between currency adjustments.)**

N/A

ix. **Can we make this automated?**

N/A

x. **1. Do we use a smart contract, or network rules of the blockchain operators?**

N/A

e. Regulation

       i.   **What are your perceptions of local and global regulation in supporting stable coin, asset backed token economies?**

Our company, Paxos Trust Company, and our stablecoin, the Paxos Standard token, are both regulated by the New York State Department of Financial Services.

      ii.   **What could be done to improve regulation in terms of speed, quality, value for your company?**

Regulatory clarity and consistency from both state and federal regulators will help to ensure that crypto assets, including stable coins are established in a compliant nature. Additionally, existing regulatory frameworks should be challenged to understand the reason why specific regulations may exist and not limit the innovation of new technologies within the financial system.

f.   Testing
       i.   **What kind of simulations have you done and what have they helped you learn? (simulating broad array of market conditions)**
1. **Mental models for simulations**
2. **Econometric models**
3. **Agent-based Modelling / Computer simulations**
4. **Other (Please describe)**

N/A