## Questionnaire - StatiCoin.com

# 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 (EVM).

ii. How does the stablecoin work?

StatiCoin is a crypto collateral backed stablecoin.

Users deposit ETH into a contract to purchase either StatiCoin or RiskCoin. When purchasing StatiCoin the value is fixed at the point of purchase to the FIAT value of the FIAT currency selected. If the value of the underlying asset (ETH) decreases, upon withdrawal the StatiCoin customer will get more ETH than deposited to match the FIAT value of the original deposit. If the value of the underlying asset (ETH) increases, then upon withdrawal the StatiCoin customer will get less ETH than deposited to equal the FIAT value of the original deposit.

The volatility of the underlying asset is transferred to RiskCoin. If the value of the underlying asset (ETH) decreases then RiskCoin holders will receive a proportionate amount (based on amount of RiskCoin

purchased) of the ETH left in the contract once StatiCoin holders have been accounted for. This could mean that the value of their RiskCoin goes to 0. Why would anyone do this? Because conversely when the value of the underlying asset (ETH) increases, RiskCoin holders still receive a proportionate amount of ETH left in the contract after StatiCoin holders have been accounted for. As StatiCoin holders only receive a fixed value in return, RiskCoin holders can receive back many times more ETH than they invested.

Diagrams and explainer video on the website: <a href="http://staticoin.com/">http://staticoin.com/</a>

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

The purpose of our coins is two fold. First of all StatiCoin offers a stable crypto currency whose audience initially, is likely crypto traders who want to hold gains in a non volatile currency. Going back to FIAT is often not straight forward and can be cost prohibitive. We believe that StatiCoin solves this issue today. This will evolve as the crypto ecosystem becomes more mature and then we will see greater interest from merchants who want to ensure that they are able to sell goods/services and receive fair value in return. Again StatiCoin can meet this need today but we are cognisant that the user experience would need to improve - for instance to reach mainstream merchants decentralised exchanges will aid the transfer of assets so that it may not be necessary for a merchant to have to understand the mechanics of how this works (unless they want to).

Secondly and supporting the first need is the investor who wants to get maximum gains from the market. By investing in RiskCoin they are taking a leveraged position on the market so can gain many more times the return than if they had simply retained their direct investment in the underlying asset. Concurrently they are helping to add to the pool of the underlying asset (ETH) to ensure stability of StatiCoin.

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

Stability for us is achieving a successful fixed FIAT value for the purchase of StatiCoin over an extended period of time. Users can redeem StatiCoin for the same value of FIAT it was purchased at. As such it does not inflate/deflate against FIAT.

To ensure stability there are controls on the minting of new coins (creation) and on the removal from circulation of coins (redemption)

#### Creation:

RiskCoins cannot be created when the price is below 0. StatiCoins cannot be created when the RiskCoin price is 0, or when the leverage is too high. This ensures that the ETH in the contract are not backing too many StatiCoins

## Redemption

The only upper limit on the volume of coins that can be redeemed in a single transaction is the amount owned. RiskCoins cannot be redeemed when the price is below 0.

An important point to note however is that it does not provide protection against the inflation of FIAT. Taking a hypothetical scenario, if as a result of Brexit is that pound sterling (GBP) becomes more volatile than ETH then purchasing StatiCoin for a fixed GBP value could be a considerable risk as ultimately it may cost you more to buy a loaf of bread than it did before if you were to cash in your StatiCoin. Simply retaining your ETH value may be preferential. So in that sense whilst StatiCoin would remain stable as it's peg is volatile there could be a disadvantageous position.

#### v. What is your revenue model?

0.2% of each coin created (less oracle costs). No other fees.

### b. Launch & marketing

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

- 1. That there is enough ETH to pay back the number of StatiCoins issued
- 2. As with any coin that there is enough market/customer interest for it to have long term viability

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

Full transparency of tokens created and ETH, only accessible by the open sourced smart contract.

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

Interest needs to be generated in both the would-be receivers of a stablecoin but also the senders, to achieve an effective network. Focusing on individuals alone would not gain much traction as there is less of an immediate value in a P2P solution, most value is in C2B. Therefore, broadly speaking go to market consists of:

- Business: Direct industry engagement with online retail channels and other interesting verticals that would find value in stablecoins
- 2. Customer: Relevant crypto social media e.g. Medium Reddit etc.

#### c. Economics

## i. What is your coin stable with respect to?

Five independent stablecoins in USD, EUR, GBP, CAD and JPY

## 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?

If the underlying asset (ETH) increases in value there is no pressure on the contract, it can remain solvent regardless of the upwards volatility.

If the underlying asset (ETH) decreases in value, then it does exert pressure on the contract. Solvency depends on the average price at which the StatiCoin was purchased and the size of the decrease in value of the underlying asset. To mitigate the risk there are controls on the issuance of StatiCoins to ensure that there is enough ETH to support them.

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

It is relatively straightforward since the formula to calculate the price is publicly available: http://staticoin.com/whitepaper/. The ETH price at which RiskCoin = 0 is also available via the Strike() function on each Minter smart contract.

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

Very cheap. Calls to the oracle are only made when tokens are created or destroyed.

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

We are completely transparent, on chain calculation of the RiskCoin price is provided by the smart contract which is published openly.

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

We do not disagree with any theoretical assumptions. We rely solely on arbitrage to justify the token price stability.

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

No. Additional StatiCoins can only be created if there are enough RiskCoins to back them. As mentioned before this is an important element of risk mitigation.

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?

Users overcapitalize the system using ETH. RiskCoin holders can lock up capital to gain a leveraged ETH position without paying additional fees (above the 0.2% token creation charge).

ix. An eventuality plan in case of a "black swan" event. 1,2 The 1% case will happen eventually.

If the 24 hour average ETH price falls below the "strike price" then Riskcoin holders will be unable to redeem their tokens. Staticoin holders will be able to fully redeem their tokens, on a first come first served basis, for as long as there is ETH available.

#### d. Tech

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

No

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?

StatiCoin has the same transactional throughput as any ERC20 Ethereum token.

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)

StatiCoin supply is limited by the number of RiskCoin holders. 24hr average price was chosen to avoid flash crash vulnerability and only Kraken provides a 24h average price in 5 currencies. Censorship and privacy features are inherited from Ethereum. Only if StatiCoin has large volume when compared to Kraken does market manipulation become a problem.

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

The oracle service and ETH price source are both centralized, although we are able to swap contracts (after a 2 day delay) once viable decentralized alternatives become available.

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?

Yes. Oraclize.it provide the 24h average pricing data from kraken.com after a 24h delay. Oraclize returns errors as 0. If a zero price is returned then the last ETH price is used as the reference price.

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

All transactions are available on the Ethereum blockchain. There is no privacy from the transaction up until ownership of the public address.

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

Contracts are programmed in Solidity and therefore not formally verified.

<sup>1</sup> https://en.wikipedia.org/wiki/Black\_swan\_theory

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

Variable. Rebasing is only done when a token is created or redeemed.

- ix. Can we make this automated?
  - 1. Do we use a smart contract, or network rules of the blockchain operators?

Fully automated at the user's request.

#### e. Regulation

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

We believe that regulation has come a long way in a relatively short period of time. Perhaps unsurprisingly we are seeing markets such as Malta and Gibraltar lead the way with progressive regulation that seeks to maximize the potential opportunity. Larger markets are naturally more risk averse and see more to lose than gain but this will flip if the more progressive markets start to erode traditional business.

Specifically on stablecoins the Marshall Islands and Estonia appear keen to embrace fiat backed stablecoins. State backed crypto currencies will lend additional credibility to crypto in general and perhaps there will be a greater trust in centralised stablecoins. Their very centralisation though will be a problem for some but as we've seen with other coins this will be overlooked in the absence of mainstream alternatives.

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

As our stablecoin is dependent on ETH as the underlying asset any regulation which makes it easier to exchange FIAT currency for cryptocurrency would be very welcome. Secondly clarification of tax rules in all jurisdictions is required for all stablecoin issuers.

#### f. Testing

- 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

Mathematical analysis of failure points

2. Econometric models

Monte Carlo risk simulations of both prices and user actions.

- 3. Agent-based Modelling / Computer simulations
- 4. Other (Please describe)