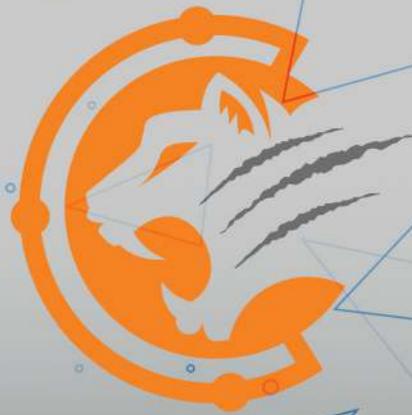


— FCT —
— TOKEN —
— AUDIT —



**CRYPTO
JUNGLE**

STEVE MILLER

Factom: Building an Immutable Audit Trail

Question is, Does Anyone Need This?

By: [Steve Miller](#)

<http://cryptojungle.io>

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Summary

Interesting project with challenges identifying protocol market fit and opaqueness on were company ends and project begins. Resulting in a token score of 28 out of 50.

Overview

Factoids (FCT) function as collateral for the Factom network, providing price stability for users looking to append data to the Factom blockchain.

Cryptoeconomics (3.5 points out of 5)

The Factom protocol operates using Entry Credits as the currency for appending data to its blockchain. The intent is for the USD value of an Entry Credit to remain stable at \$0.001 so users have certainty on how much it will cost to store their records via Factom.

Purchase of entry credits requires acquisition of Factoids. Once acquired Entry Credits can be purchased using Factoids at the going rate. So if an FCT is worth a \$1 it can be used to purchase 1000 Entry Credits. If the price of FCT would rise to \$2, 2000 Entry Credits could be purchased.

Users are expected to purchase Entry Credits soon after acquiring Factoids so they are able to post their entries at the intended rate of \$0.001. Where-as FCT holders are speculating increased demand for access to the Factom blockchain will result in higher demand for Entry Credits leading to a rise in value of the FCT token.

FCT tokens used to purchase Entry Credits are burned. This burn is not permanent though as the long term intent is to reissue Factoids used to purchase Entry Credits to maintain a fixed supply of ~8.7 million FCT. Currently, there is annual inflation in supply of ~10% to give the project room to grow as user demand increases (tk insert link Onchain). When the project achieves sustainability this supply should be burned without being reissued.

Entry Credits are the stablecoin of the Factom blockchain intended to provide certainty to users on costs. While FCT is the collateral instrument absorbing the price volatility as demand ebbs and flows for the projects services.

Investability (2.5 out of 5)

There are outward signs the project maintains disciplined spending habits. After an initial surge of hires, staff reduction appears to have been undertaken when user growth stagnated to preserve capital. The challenge is all of this activity takes place within Factom the organization as project sponsor and is not publicly reported making it hard to verify.

Adoption has stagnated over the last year with minimal [network growth](#). If adoption does pick up the requirement to purchase Entry Credits using FCTs provides a mechanism for value capture by token holders.

Factom has done a good job branding the project as a resource for customers who need an immutable audit trail. Monetizing these efforts via user growth has not yet come to fruition.

The project does not appear to have strong defensibility characteristics because of its lack of network effects. With the right skillset, other teams could straightforwardly offer a similar solution.

And,

There is evidence the Bitcoin Satoshi Vision blockchain is being used for Factom's intended purpose. Because it is so cheap to transact on its blockchain. Even though no specific efforts were put forth build out this functionality.

Distribution (3.5 out of 5)

Factoids were [rewarded broadly](#) to all pre-ICO contributors including advisors, community builders, and developers on equal terms. These rewards were not subject to any vestings or lock-ups. The token sale was not equitable as only 50% of FCT supply was distributed and the project was pre-product at the time the ICO was conducted.

The continual issuance model the project employs is optimized for long term usage of the product. The supply of FCT is projected to increase 10% annually. If the model works properly 10% of FCT supply will be burned acquiring Entry Credits. Offsetting issuance and stabilizing supply around 8.7 million. This churn makes it easier for new users to acquire and use the FCT token.

Team (2.5 out of 5)

The team has an established track record of achievement in industries requiring robust audit trails like healthcare and finance. While including individuals with a variety of skills. The concern is does the team as currently constructed possess enough technical expertise to implement its vision.

While skilled, the team does not possess unique qualifications for tackling the problem. In their defense the primary reason is because this is not a problem anyone appears to have attempted to tackle before.

The team does not have a background building distributed computing systems. Transparency is a challenge as it is not always clear were Factom the company ends and Factom the project begins.

Project (4 out of 5)

The project is live and there is an active posting of records to the Bitcoin blockchain as intended. The white paper is well written and high quality with updates published as the project evolves.

Gaining traction has been a challenge with network volume amounting to only \$2 on some days. This indicates work still needs to be done by the team understanding how its unique value proposition of an immutable audit trail fits into the broader industry landscape.

It has been open source since [initial release](#).

Scalability (2.5 out of 5)

The project leads can hire and develop as the project team topped out around 15 people at its peak.

One potential reason for the project struggling to gain traction is the lack of a road map clearly defining timelines for protocol enhancements. Instead, the focus is on marketing to verticals the project could be useful in serving with no detailed information provided on how it plans to go about doing so.

Developer experience has been continually improving with updates and releases happening on a [consistent basis](#).

The project appears to have proactively reduced expenses to lower its burn rate and extend the runway for finding protocol market fit. The concern is even with staff trimmed and the burn rate reduced can they gain traction before funding runs out.

Usage is not high enough to properly evaluate its geographic dispersion. It is not uncommon for there to only be 1 user entering records on any given day.

Securability (2 out of 5)

Factom's network is secured by servers functioning in a similar fashion to how nodes operate for other crypto networks. Currently only [~50](#) of these servers are active. This is close to the max intended amount of 65.

The servers are split into two categories Federated and Audit. Federated servers are responsible for actively maintaining the network's security. While Audit servers verify Federated servers are not acting maliciously. If a problem is detected with a Federated server it is replaced by an Audit server.

Servers are selected via an application process and rewards for securing the network are limited to the operators running the selected servers. Factom's network was intentionally designed this way because it also leverages bitcoin's security using bitcoin's blockchain for record-keeping.

Factom runs an ongoing [bug bounty](#) and has a systematic process for fixing bugs when they are identified.

Entry Credits were designed to be held in low security environments as their singular purpose is facilitating data entry onto the bitcoin blockchain via the Factom protocol. A variety of options exist for securely storing Factoids.

Decentralization (2 out of 5)

There is a dedicated community of [developers contributing](#). A [roadmap](#) for decentralized governance has been published.

It is unclear where Factom the company ends and the project begins. For now, it does not appear the Factom project could function normally absent the support it is receiving from the Factom company.

Factom lacks a robust set of exploration tools. So detailed information on concentration of holdings is not readily available, ownership appears to be concentrated with the Factom company.

To date, the project has been US-centric with high profile support from the US Government and US-based philanthropic organizations like the Bill and Melinda Gates Foundation.

Engagement (1 out of 5)

While contributors to the project are high, developers do not appear to be extending the protocols functionality by building additional applications on top of it.

What the Factom community lacks in numbers it makes up for with intensity, possessing an active [Reddit community](#) and [Discord](#). Twitter engagement is minimal and mentions on google trends are in a [downtrend](#).

Risk Management (4.5 out of 5)

The code base is actively audited as part of the governance process. Factom is leveraging bitcoin's anti-fragility as its own by anchoring its records to the bitcoin blockchain.

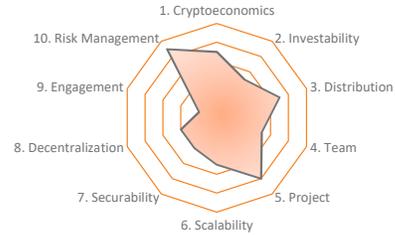
The Factom Company has raised extensive capital in USD. So funding risk is low compared to projects more dependent on funding from their native asset.

Attack risk is minimal because entry credits are essentially worthless unless used to add data to the Factom blockchain. There is some regulatory risk because Factoids are intended for speculative use to stabilize the price of entry credits



FCT Token Score:

28



Summary: Factom

Interesting project with challenges identifying protocol market fit and opaqueness on where company ends and project begins. Resulting in a token score of 28 out of 50.

Coin: FCT		Date: 02/24/2020		Auditor: @tokenauditor	
Grading: 1 point per bullet achieved		Score	Comments	Audit/Project Resources	
1. Cryptoeconomics		3.5			
o Defensible Tokenization	1	Maintains price stability of Entry Credits	Messari Profile		
o Properly aligns incentives across stakeholders	1	Hedging mechanism to minimize price volatility for users			
o Mechanism to maintain scarcity	0.5	Issuance and Burning should offset unproven			
o Mechanism to generate value	1	Data appending to Bitcoin Blockchain			
o Mechanism to generate network effects	0	No benefit to current users from new users			
Notes: Supply target of 8.7 million FCT once long term issue/burn model is implemented.					
2. Investability		2.5			
o Disciplined well structured capital allocation process	0.5	Appears disciplined, opaque			
o Proven natural demand (Adoption increasing over time)	0	Network growth stagnant for last year	Flipside Crypto		
o Mechanism to capture value	1	Required to purchase Entry Credits			
o Brand	0.5	Immutable audit trail			
o Defensibility	0.5	Lacks moat Minimal competition			
Notes: Immutable audit trail - proves information entered at a specific time (mistakes do not alter blockchain)					
3. Distribution		3.5			
o Insider skin in the game (allocations subject to vestings and lock ups reflecting preferred status obtaining tokens)	0.5	No lock ups / vestings Rewards broadly distributed	Factom initial supply		
o Optimized for long term usage of product	1	Continual Issuance makes new user access easier			
o Equitable token sale At least 80% pre-product / 50% if product is live	0	50% pre-product			
o Broad Distribution Should not be accredited / institutional only	1	Tokens offered on equal terms to all			
o Limited Supply	1	Burn and Mint should stabilize supply around 8.7 million			
Notes: Protocol burns tokens, if not adopted, minting of new coins could devalue existing holders					

Coin: FCT		Date: 02/24/2020	Auditor: @tokenauditor
Grading: 1 point per bullet achieved		Score	
4. Team		2.5	
o Track record of historical achievements	1		Factom Company Team
o Distinctive combination of skills	0.5	Light on technical expertise	
o Unique qualifications for tackling problem	0.5	Skilled but not uniquely qualified	Token Insight
o Experience building distributed computer systems	0		
o Transparent and consistent ethical behavior	0.5	Unclear were company ends and project begins	
Notes:			
5. Project		4	
o Project is live and has existing users	1	Yes	Factom Explorer Factoid Explorer
o Well written high quality white paper	1	Yes - updated multiple times	
o Demonstrated understanding of landscape of possible competitors, substitutes	0	Lack of protocol market fit ~2 of daily volume recently	
o Unique value proposition	1	Immutable audit trail	
o Open source	1		Documentation
Notes:			
6. Scalability		2.5	
o Project leads can hire and develop	1	Previously made ~15 hires	
o Clearly defined roadmap to obtain share of market	0	No roadmap	
o Continually Improving Developer Experience	1		Github
o Sustainable burn rate	0.5	Staff down to 4 from high of ~20	
o Geographically distributed usage	0	Minimal daily usage Appears to be 1 currently	
Notes:			
7. Securability		2	
o High volume of nodes	0	~25 Federated Servers ~25 Audit Servers	Authority Node Operators
o Systematic approach to dealing with bugs	1	Ongoing bug bounty Systematic Process for fixing	Factom bug bounty program
o Widespread distribution of miners / stakers	0	Max 65 Currently ~50	
o Untiered rewards	0	Limited number of node operators receive all rewards	
o Easily stored securely	1	Entry Credits designed to be held in low security environments	
Notes:			

Coin: FCT		Date: 02/24/2020	Auditor: @tokenauditor
Grading: 1 point per bullet achieved		Score	
8. Decentralization		2	
o Widespread developer contributions	1	Yes - dedicated community of contributors	FCAS Dev Score 761 Major-Contributors
o Roadmap for decentralized governance	1	M3 instance intended to be fully decentralized	M3-roadmap
o Lack of concentrated holders	0	Information not readily available	
o Would function normally without creators	0	Factom company integral to operation	
o Global	0	Appears US Centric	
Notes:			
9. Engagement		1	
o Developer adoption protocol	0		
o Active commenting reddit	0.5	Sparse community is deeply engaged	Reddit
o Long lasting ongoing discussions in Slack, Telegram, Discord, etc...	0.5		Discord
o Positive Twitter sentiment	0	Not a lot of engagement or mentions	
o Uptrend in Google Trends	0	Downtrend	Trends
Notes:			
10. Risk Management		4.5	
o Code Audit	1	Active	
o Anti fragile - gets stronger when stressed	1	Anchored to bitcoin blockchain	
o Low funding risk (fiat)	1	Extensive Capital Raising in USD (Company)	
o Attack Risk	1	Entry Credits have minimal value	
o Regulatory Risk	0.5	Utility Token with attractive regulatory use case	

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**Principals of Crypto Jungle did not own a position in the FCT token as of (02/24/2020).*



Further Reading

Crypto Jungle's Token audits are conducted using the [cryptoasset flywheel](#). Check out the articles below to learn more about using the flywheel to evaluate potential cryptoasset investments...

[10 Point Checklist for Auditing Cryptoasset Investments](#)

[How to Evaluate a Projects Cryptoeconomics](#)

[Great Crypto Projects Aren't Always Good Investments](#)

[How to Evaluate the Implications of a Cryptoassets Distribution Model](#)

[Evaluating Cryptoasset Project Teams](#)

[What to Look for in High-Quality Cryptoasset Projects](#)

[Assessing A Cryptoassets Scalability](#)

[SecuritaH Protocols for Cryptoassets](#)

[How to Tell if A Cryptoasset is Decentralized](#)

[Should You Get Hitched to a Cryptoasset](#)

[Cryptoasset Investing is Risky Business](#)

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