Fundamental Report

Prime Rating Report V2.1

Protocol: SIREN
Date: 16/06/2022
Previous Report: N/A

Author: OriginalSK
Reviewed by: xm3van
Season/competition: Off-Season

Scorecard

1. Value Proposition	Points
a) Novelty of the solution	10 / 15
b) Market fit/demand	6 / 15
c) Target Market Size	4 / 10
d) Competitiveness within market sector(s)	3 / 10
e) Integrations & Partnerships	9 / 15
Total Points - Value Proposition	**32 / 65**
2. Tokeneconomics	**Points**
a) What is the extent of the token's capabilities?	4 / 10
b) Initial token allocation	8 / 15
c) Continuous token issuance & tokenomics mechanisms	6 / 10
d) Is the value capture model able to accrue and distribute value?	1 / 10
e) Is the token sufficiently liquid to enable active use and trade?	1 / 5
f) Are there any extrinsic productivity use cases?	2 / 10
Total Points - Tokenomics	**22 / 60**
3. Team	**Points**
a) Is the team credible and public?	6 / 15
b) Does the team have relevant experience?	4 / 10
c) Does the team participate and help shape the public debate?	2 / 5
d) Is the team able to effectively attract and coordinate resources?	9 / 10
Total Points - Team	**21 / 40**

4. Governance	Points
a) Admin Keys	**10 / 20**
b) Extent of Governance capabilities	**8 / 15**
c) Active Governance contributors	**2 / 5**
d) Governance infrastructure	**5 /10**
e) Robustness of Governance process	**4 / 10**
Total Points - Governance	**29 / 60**
5. Regulatory	**Points**
a) Does the protocol have any legal accountability?	**8 / 15**
b) What is the quality of the legal jurisdiction?	**10 / 10**
Total Points - Regulatory	**21 / 25**
Total	**122 / 250**

1. Value Proposition

The Value Proposition section describes the value a protocol delivers to its users. Based on the proportion of the problem the protocol aims to solve and the potential of the protocol to effectively solve the problem - better than other industry solutions - a Value Proposition rating is created.

a) Novelty of the solution (15 points)

This score evaluates the novelty (uniqueness) of the protocol. Has the protocol introduced any new innovations that help solve user's problems more efficiently? Is the project a fork? To what extent did they copy/fork the original?

Answer:
Siren (SIREN Markets) is an options protocol available on Polygon and Ethereum that allows users to create, trade, and redeem fully-collateralized options of any ERC-20 token, options are European style. For context, options are financial products that give buyers the right to buy (Call Options) or sell (Put Options) an underlying asset (e.g. stocks or commodities) at an agreed price and date. The first version of Siren, launched on Ethereum Mainnet in March 2021, the protocol claims to have introduced 2 novel innovations to the cryptocurrency options market:

1) Bilateral Tokenization: both sides of an option contract are tokenized allowing both buyers and writers to mint, buy, and trade options positions at any time.
2) Separated AMM layer from their settlement layer.

Automated Market Maker pools provide liquidity from LPs to buyers that create option series, LPs act as the option writers - "*choosing to provide (liquidity) towards a 'call' or 'put' pool and becoming broadly indexed across every option series created from the selected pool*". Buyer premiums are distributed pro-rata to LPs. Bilateral tokenization represents both sides of an options contract, with bTokens representing long sides and wTokens representing short sides.

Relative to other options creating and trading protocols, the technical innovations stated above appear to be minor, the use of AMM as liquidity sources for options contracts is a feature present in Premia and Hegic. The separation of their settlement layer from their AMM layer seems to be more of an early strategic choice, they go on to state: "*This paradigm allows a strategy that serves SIREN in early stages of limited markets and liquidity to transform and iterate as growth takes place and the protocol exceeds such limitations*."

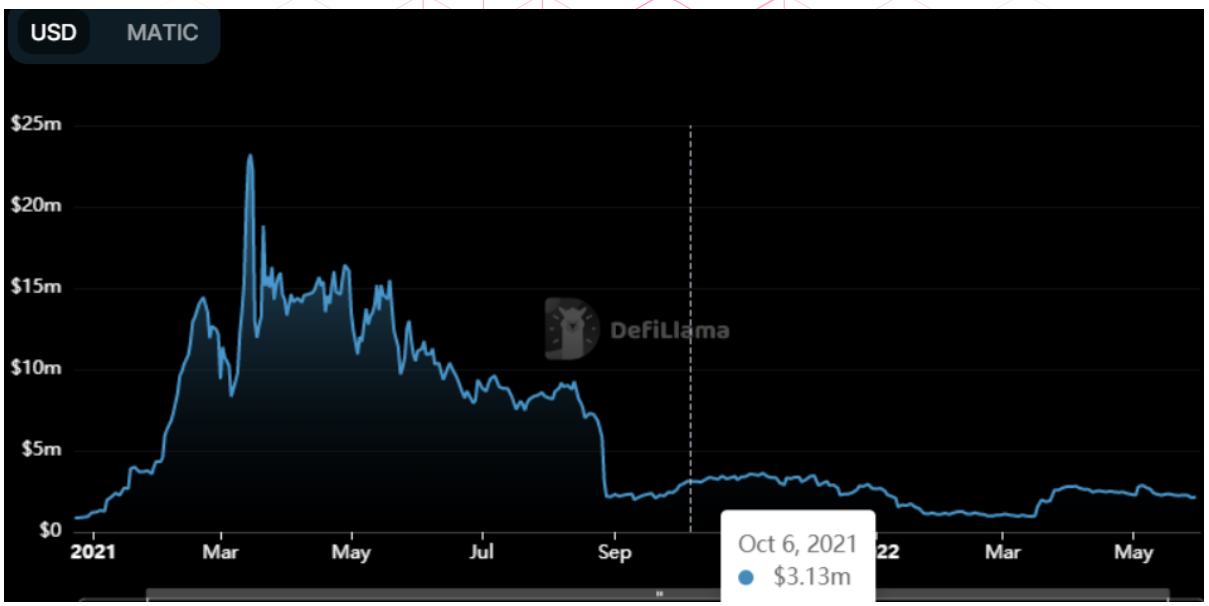
Their tokenization model seems to be the most unique innovation, this feature allows the protocol to use liquidity pools across multiple option series. Therefore for this section, 8 is given for the tokenization novelty and 2 for the benefits this presents for users: automated management, options writing, rolling collateral into new series automatically once options expire. A final score of 10.

Score: 10

b) Market fit/demand (15 points)

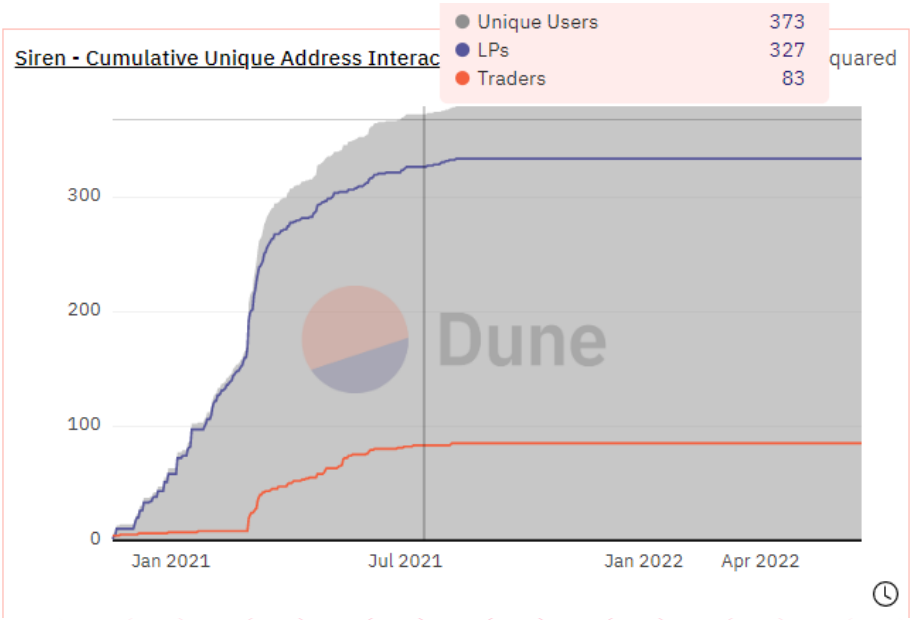
This score evaluates the degree to which the protocol satisfies a strong market demand. The market fit evaluates if the protocol is able to satisfy the needs of a specific market (can also be measured by user adoption/ #of users). To what extent has the protocol proven to meet the demand of a specific market? Is the timing of the product right for the market? Is the protocol targeting the right market?

Answer:
As a provider of options products, TVL is an important indicator of the protocol's liquidity supply. According to DeFillama, Siren's current TVL sits at ~$1.6M, prior to the current overall market downturn TVL was relatively low from its peak in March 2021 (~$23M). TVL has remained low on the protocol since its sharp drop in Aug 2021, as shown in the graph below.



Source: Defillama

User data tracked on Dune also seems to indicate that the protocol previously also experienced low user numbers, even during its peak. The most relevant Dune dashboard tracked until August 2021 (this represents available user metrics this rater could source), shows low unique users interacting with the protocol, with LPs not exceeding 300 and traders not exceeding 80 per day.



Given the drop in TVL post August 2021 it is within reason to assume that user numbers would have dropped off as well, based on this assessment the protocol seems to not have shown product market fit. An upgrade from Siren Lyonesse to Lemuria does indicate improvement efforts are being made to attract more users. This section scored 6.

Score: 6

c) Target market size? (10 points)

The target market size evaluates the current and future size of the problem the protocol is aiming to solve. The category of the Open Finance solution can be used as a reference to the target market (for example: Lending). Because Open Finance is by definition global, the global market for a specific problem equals the target market size.

Answer:
Total value locked in DeFi according to DefiLlama is ~$70B, recently declining from highs seen between Nov 2021 and Jan 2022. Derivatives are by nature sophisticated products and not necessarily accessible to general users/traders, for this reason the Options market TVL of ~$296M makes up a small portion of overall DeFi TVL.

Looking at traditional finance, options contract volume has seen consistent growth, increasing from 9.42B to 33.3B contracts between 2013 to 2021. In monetary terms, the average daily notional value of traded stock options was $450B in the US alone. At best traditional finance could indicate the growth potential of crypto options, but this is speculative given uncertain adoption by institutional investors. Therefore this section is scored 4 to indicate the small current market size and growth potential.

Score: 4

d) Competitiveness within market sector(s) (10 points)

This score evaluates the competitiveness of the protocol within the market sector(s) it operates in. This score offers a relative comparison of the protocol and other protocols operating in the same market sector(s). To evaluate this, metrics to directly compare with the competition can be used (e.g. TVL, trading volume, number of users).

Answer:
Siren faces direct competition from option pool protocols like Opyn, Hegic and Premia. Below is a breakdown of each competitors TVL and total users:

Protocol	**TVL**	**Users (Cumulative)**
Opyn	~$67M	>17 000
Hegic	~$3,98M	>4 000
Premia	~$5M	>1 400
Siren	~$1,69M	>300

Based on the above data Siren is currently struggling to compete against market alternatives, this trend can be traced back to August 2021 with TVL remaining low since this period. Total users have been approximated where possible, but it is clear based on the most accurate TVL figures that Siren is struggling to compete. Competitively the protocol does offer some benefits that differentiates their European style options as explained in section 1a), however it is hard to say if this is sufficient given their historically low TVL and at best approximated low user figures. This section is scored 3.

Score: 3

e) Integrations & Partnerships (15 points)

Due to crypto's open-source nature, the code of most protocols can easily be forked. This score represents a piece of "unforkable value". Some indicators to look at are the number of applications built on top of the protocol (vertical integration), other entities integrating the protocol's services (horizontal integration) or the number of relevant partnerships (be careful of logo collections/ partnerships without much purpose).

Answer:
Not a lot of published info is available on Siren's partnerships or integrations that could be said to be 'unforkable', general partnerships and integrations that could be determined were:

The Graph: an indexing protocol for querying networks like Ethereum and IPFS. Siren uses the protocols hosted service for its user interface, including data visualisations.
Chainlink: integration of oracle protocol's Keepers service.
Tradewinds Program: *"Under the Tradewind program we are collaborating with several blue-chip DeFi protocols to launch their options on our platform."*

- Polygon: partnership with Polygon will enable projects on the network to issue options on their tokens.
- Kyber: Kyber Network and SIREN Markets Call options for KNC on SIREN Tradewind.
- DPI: DeFi Pulse and SIREN Markets Call options for DPI Index on SIREN Tradewind.

The most significant relationship listed above is the Tradewind program, this partnership boosts Siren's visibility and access to other participants. As a potential go-to source for Polygon, protocols to launch options on their tokens a score of 9 is given.

Score: 9

2. Tokeneconomics

The Tokeneonomics section assesses the function of a protocol's token. This includes the token distribution, functionalities of the token, the ability of the token to incentivize positive behavior in the protocol, and the ability of the token to capture a portion of the value created.

a) What is the extent of the token's capabilities? (10 points)

Is the token useful within the protocol? Does the token allow the holders to participate in governance or influence the protocol in any way? Does it serve any other purposes?

Answer:
$SI, is the protocol's native token and gives holders the ability to vote on governance proposals, influencing the project's direction. Initially launched as a means of fundraising and as a measure for community accountability, there are now plans to move to a new token with added features like inflation and staking reward.

As these features are still in planning, only the existing SI capabilities will be scored here, therefore this section is scored 4.

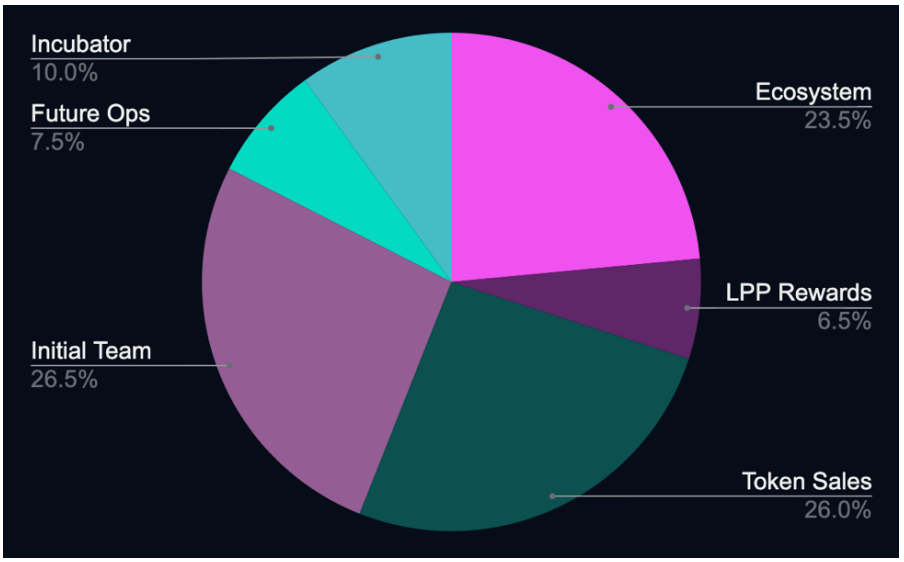
Score: 4

b) Initial token allocation? (15 points)

Token distribution can be an indicator of a healthy protocol and, if done well, can improve coordination and alignment among different stakeholders. Was the genesis/initial distribution fair and balanced? Are the tokens distributed widely or is the ownership concentrated and skewed toward early insiders? Are vesting schedules aligned with long-term vision?

Answer:
To fund the development of Siren Markets, $SI was initially distributed via a token sale. Siren held a LBP launch on 2 March 2021. 26% of the capped 100M supply of SI was made available, the extended distribution of SI can be seen below:

34M SI: Current team, future team, and advisors.
10M SI: Early incubator that invested in the development of SIREN.
26M SI: Previously sold and future unsold positions of investor tokens, to the extent they fully exercise their rights to purchase SI.
30M SI: Ecosystem and rewards, which will benefit traders, LPs, and developers who participate in the SIREN ecosystem.



Source: Siren Docs

Vesting schedules are broken down into to categories with varying lockup times:

All team tokens have a minimum one year full lockup and a total four year unlock schedule.

All private investors have a minimum one year lockup schedule and a total two year unlock schedule.

Lockup Schedules	Lockup Cliff	Lockup Total
A	1 year	4 years
B	1 year	2 years
C	50% day 1	3 months
D	none	none

Tranche	Total	Lockup Schedule
Ecosystem	23.5%	D
LPP Rewards	6.5%	C
Token Sales	26.0%	B
Initial Team	26.5%	A
Future Ops	7.5%	D
Incubator	10.0%	A

Source: Siren Docs

Based on the above; 44% of the current Siren token has been allocated to insider stakeholders (the initial team, incubator investor and future ops), and around 56% of the remaining going to the public (community, public sale, ecosystem, LP rewards). The public allocation isn't significantly larger than insider allocation but it is a majority of the overall supply.

Vesting schedules for the initial team and incubator have a 4 year lockup but unlock over a shorter vesting cliff of 1 year. Public schedules are shorter in lockup and release schedules with only the token sale having a 2 year lockup and 1 year cliff.

Token distribution between insider and public stakeholders are relatively similar, with the public owning a slight majority share. Lockup periods are longer for insider stakeholders, ensuring a commitment to the project for at least 4, however with a 1 year vesting cliff, i.e. at the end of the cliff period of 1 year holders receive their full allocation. This could create some incentive to sell-off and leave the project post vesting. In conclusion, distribution is fairly reasonable with a slight skew towards the public, cliffs are quite short with 1 year being the max, however lockups are over 3 years for insider stakeholders while the community either have no lockups attached that I think would incentive early engagement from the community. Based on this assessment this section scores 8.

Score: 8

c) Continuous token issuance & tokenomics mechanisms (10 points)

Most token distribution schedules have built-in inflation. This section evaluates the purpose of that continuous token distribution. Is it justifiable? Does it help improve the coordination and alignment of incentives for the protocol? Does it incentivise positive-sum behaviour? Are the benefits flowing to all relevant stakeholders or just select groups?

Answer:
$SI is currently capped at 100M, continued issuance comes from rewards (e.g. Liquidity provider programs) and ecosystem contributions to the community. As percentage of the total supply this amounts to 30%, this issuance can be taken as yet to be determined as it will vary on community engagement, we can assume however that this allocation has to be issued in intervals sufficient to last for at least 4 years to be in line with insider token unlocks. The incentive for this stakeholder group would be the rewards/compensation available in contributing to the protocol.

Issuance for insider stakeholders is limited to the allocated supply mentioned in section 2b), the unlock schedules could be taken as the continued issuance model for this group. The incentive in this case would be to contribute to improving the protocol so long as their tokens are locked away.

In the case of public stakeholders, a 30% allocation seems reasonable if not a bit limited in maximising positive engagement while for insider stakeholders this model seems reasonably coordinated for more than 3 years. Based on this assessment a score of 6 is given.

Score: 6

d) Is the value capture model able to accrue and distribute value? (10 points)

A value accrual and distribution mechanism can help improve the utility of a token and its ability to be used as an effective coordination mechanism. Does the protocol have mechanisms to distribute some of the value created to the token holders?

Answer:
The current Siren Markets token is limited to governance, in their docs they state:

"SI is an ERC-20 native token. The function of the token is governance; in the future - as well owning a share of the fees generated by the protocol." As mentioned previously, there are plans for a new token that will include value capture and protocol incentives.

A 1 score will be given due to the fact that $SI was always intended as a "*fundraising and accountability vehicle for the early stages of the project*." Details of the Siren tokenomics revamp can be found here.

Score: 1

e) Is the token sufficiently liquid to enable active use and trade? (5 points)

Is the token widely available and is there sufficient liquidity available to facilitate all protocol functionalities?

Answer:
$SI is available on 1 centralised exchange; Hotbit, and 2 decentralised exchanges; Sushiswap and Uniswap. Based on Coinmarketcap, liquidity is low or n/a with the only available score being 37 from Hotbit (scored 0 - 1000, scores closer to 1000 represent high liquidity).

Score: 1

f) Are there any extrinsic productivity use cases for the token? (10 points)

Besides the protocol's value distribution model as described in 2. d), can the token be used productively on other protocols (e.g. as collateral, for lending, LPing, yield farming, etc.)?

Answer:
Currently the only external utility is providing liquidity to DEXes.

Score: 2

3. Team

The Team section describes the quality of the team behind the protocol. The current version of Prime Rating favors teams that are publicly identifiable. In the case of an anon team, the track record of the specific anons involved can be taken into account

a) Is the team credible and public? (15 points)

Are the identities of the core contributors and team publicly identified? In the case of anon team members, is there any way to track their background/record?

Answer:
The team is currently anonymous, stating "*until control of the project is clearly in the hands of the DAO. After that being tied to a bleeding-edge financial project is less risky from a personal safety perspective for team members.*" The Anonymous team is relatively public, their anon handles are listed on Siren's About page however their roles are not stated clearly.

Siren's Github of core smart contracts shows 4 contributors with more than 15 commits, namely: MysticDakra, seafi, lukaskiss222 and siren-tamer. These anonymous contributors have largely been involved since before the protocol's main launch in early 2021.

MysticDakra, Seafi and Siren Tamer appear to be somewhat public and credible based on their disclosed 'contributor' role on the protocol's website and commits on Github. Based on this assessment a 6 score is given.

Score: 6

b) Does the team have relevant experience? (10 points)

Are there any documents or trails available to showcase the track record of the team? Do the team members have relevant backgrounds and skill sets?

Answer:
The level of relevant experience is hard to determine due to the team's anonymous status, at most we can observe the commits made on Github for Siren Markets and other projects.

MysticDakra - 103 commits, Seafi - 55 commits, Siren-tamer - 20 commits. Most of the activity observed is connected to Siren Markets so prior experience is difficult to determine. Given a working product and visible track record, it is reasonable to assume that the team is fairly skilled, however their relevant experience is undefined.

This section is scored 4 to indicate the observed skill in developing a complex product like Siren Markets.

Score: 4

c) Does the team participate and help shape the public debate? (5 points)

To what extent do the protocol contributors participate in the public debate around open finance? Are the team members giving presentations, sharing their thoughts and opinions, and do they help raise the collective intelligence of the industry?

Answer:
SeaFi and Dakra-Mystic, are the most visible when it comes to public discourse participation on Twitter, the amount of opinion sharing or content unrelated to Siren is not extensive but they have been active recently. Apart from twitter posts no other contributions could be found. This section is scored a 2 for occasional noted activity.

Score: 2

d) Is the team able to effectively attract and coordinate resources? (10 points)

How effective is the team at attracting and coordinating resources for the benefit of the protocol? Has the team raised sufficient funding or are there mechanisms in place to attract resources when needed?

Answer:
Based on their docs, Siren Markets have raised 2 rounds of funding:

December 2020: $1.2M

Investors: Spartan Group CMS Holdings QCP Capital Robert Leshner and Tarun Chitra's Robot Ventures Mechanism Capital Blockfolio Founder Edward Moncada Dialectic

March 2021: $4M

Investors: 1kx Spartan Group CMS Holdings Naval Ravikant Robot Ventures Mechanism Capital Rockaway Blockchain Fund Edward Moncada WikiHow Founder Jack Herrick Santiago R. Santos from ParaFi Capital

The planned use of these funds: "*security auditing and expanding the team to accommodate an ambitious project roadmap for 2021.*" A part of their 2021 roadmap can be found here, the launch of Siren V2 indicates that the team followed through with their use of funds. Non-financial resources couldn't be determined.

The diverse number of investors and executed roadmap shows that the team has attracted sufficient resources and coordinated efficiently.

Score: 9

4. Governance

The Governance section evaluates how the protocol is governed and who the governors are. The different governance functionalities and processes are evaluated to determine to what extent the Protocol will be able to self-govern in a way that ensures the development of the protocols while respecting the needs of all current and future stakeholders.

a) Admin Keys (20 points)

Admin Keys allow some critical functionalities of a protocol to be controlled by an admin. This allows the developers

to react to potential bugs, but also creates a risk as the developers could potentially misuse the admin keys to exploit the protocol. Does the protocol have admin keys and how are they managed?

Answer:
Contracts that users interact with are instances of the 'SIREN Proxy contract', The SIREN team have chosen this in the event of a security vulnerability, allowing them a mechanism for resolving vulnerabilities. This means that contracts are upgradeable, source:

"*This also means the contracts could be upgraded in a malicious manner if the admin account were ever compromised. To protect against this dreadful possibility, the admin account is a Gnosis Safe Wallet which requires multiple signatures*"

Given the fact that the admin account is a multi-sig operated by a somewhat credible team, a 10 is given.

Score: 10

b) Extent of Governance capabilities (15 points)

Distributed governance allows the token holders to participate in the governance of open finance protocols. How much influence does the governance mechanism have? Are the votes affecting on-chain changes or do they function solely as signals to the team?

Answer:
$SI holders can propose and vote on SIREN Markets measures. Governance influences:

- Options markets creation
- Protocol incentives
- LP-related decisions,
- Fees management

Currently voting acts as a signal to the protocols core contributors, guiding critical decisions with input from the community. As governance influences multiple areas of the protocol but currently only to the extent of providing signals (indirect influence) to the main team a score of 8 is given for this section

Score: 8

c) Active Governance contributors (5 points)

Governance is a process that can be rather resource-intensive if executed well. To ensure good governance is practiced by the protocol, it's important to have a sufficient number of governors allocate resources to the governance process of the protocol. How many individuals participate in the debate around the protocol? How active are voters?

Answer:
Siren's forum has over 22 improvement proposals, views on each forum post range between 120 - 1.5K views, it is interesting to note that comments have declined over time. Only 4 proposals have been voted for on Snapshot, when examining proposals a single account seems to determine the result in each case. Currently only 8 $SI holders are members of the protocol's snapshot channel.

To conclude, because of the decline in governance discourse and the low number of votes, a 2 score is given for this section

Score: 2

d) Governance technology/infrastructure (10 points)

The Governance infrastructure relates to the technology, software, and models used by the protocol's governance. Does the protocol have a reliable and usable voting mechanism? Are there channels for governance debate? Is there sufficient documentation available?

Answer:
The infrastructure used is similar to the general DAO governance model found in other protocols; Discord and Forum is used to informally discuss proposals to determine if there is enough support to warrant proceeding to a formal vote. Snapshot voting is then used to signal the communities preference to the core contributors.

This section is scored 5, due uncertainty of proposals reaching vote despite over 20 being discussed in the forum yet only 4 votes have taken place.

Score: 5

e) Robustness of Governance process (10 points)

This score requires documentation specifically on the governance process that sets the basic framework in terms of agreements, norms, and language for governing the protocol and to create social consensus. Does the protocol have a formal governance process? How robust is the governance process and does it promote good governance?

Answer:
No detailed documentation currently exists for governance. A brief description of governance can be found here however no formal processes are established yet. This section is scored a 4 for the informal nature of the current governance framework.

Score: 4

5. Regulatory

The Regulatory section describes the extent and quality of the regulatory environment that affects the Protocol. To be able to guarantee functionality, security, and legality the protocol should comply with regulatory requirements, or limit itself to facilitating services to users who are willing to operate outside of the traditional regulatory environment.

a) Does the protocol have any legal accountability? (15 points)

Does the protocol have any form of legal accountability? Can users and partners hold the protocol accountable in case of a breach of the agreement?

Answer:
Privately Held Entity, according to Pitchbook. Some information about this entity is available, but information about the individuals involved is limited.

Score: 8

b) What is the quality of the legal jurisdiction? (10 points)

If the protocol has a legal entity, what is the quality of the jurisdiction the entity is established in? Will the jurisdiction be able to facilitate the legal framework for the protocol to expand while remaining accountable.

Answer:
United States

Score: 10

About the Author: OriginalSK