Fundamental
Prime Rating Report

Protocol: REN
Version: 1.0
Previous Report: None

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Please fill in all questions with a written explainer, any relevant links and score per variable based on the Fundamental Review Process V 1.0. Insert the scores per variable in the scorecard at the end of the report. Please follow the Rating Process when creating and submitting a report.

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.

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? In general, forks without any newly added functions are considered subordinate to the protocol they forked.

Answer:
Ren (former Republic Protocol) is a decentralized crypto asset custodian, that created a unique solution – the Ren Virtual Machine (RenVM) for wrapping tokens and transferring them between different L1 blockchains. RenVM enables universal interoperability between blockchains. For instance, BTC to Ethereum. The solution is permission-less, trust-less, and capable of bridging multiple blockchains with only one transaction.

This is achieved by operating a network of darknodes. These nodes use a privacy algorithm to protect user funds and ensuring node operators do not get any information about the transactions. It is still the only protocol bringing Bitcoin to Ethereum (and other blockchains) without relying on centralised third parties (source; source).
Score: 15

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. 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:
When it comes to market fit, Ren's wrapped tokens such as renBTC (or renDOGE) are still behind the current market leader wrapped Bitcoin (WBTC) operated by BitGo and a consortium of DeFi protocols (incl. Ren). This might be due to better user experience and faster transactions when wrapping WBTC.

The market for interoperability is still very young and at the moment, most action is happening on Ethereum (and BSC to a certain extent) with most of the volume going to wrapped Bitcoin. However, the REN bridge connecting Ethereum, and the Binance Smart Chain (BSC) is already being used with over $5B in total volume and a record of $250M in just 7 days at the end of May 2021. In summary, the wrapped token service is currently not the market leader, and interoperability is still a very young phenomenon.
Score: 10

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:
Even if we can assume that we will see a multi-chain universe with many chains for different use cases in the future, it's still difficult to attribute a concrete number to the market size for inter-chain transactions. However, this market is most likely going to be massive and probably the best analogy is the Forex market, which is the largest financial market in the world, with daily volumes of over $6.6 trillion (source).

Score: 10

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). The relative comparison can become rather subjective, to solve this the score standardizes the results in fixed categories.

Answer:
The chances that Ren can capture some significant market share for inter-chain transactions and wrapped tokens are high, given they're clearly a pioneer in the space. However, it's not yet clear which technology is going to be used for these types of transactions. It remains to be seen whether it's tokenized representation (i.e., wrapping tokens like REN does), atomic swaps, whether people will use other inter-protocol and inter-chain bridges, or synthetic assets resembling BTC for instance. Although the target market size is most likely going to be big, so is the competition and technologies trying to solve the issue.

Taking a look at the current market situation, Ren tokens are used to a much lesser extent than WBTC. At the time of writing, the market cap for renBTC was at $438M while the MC for WBTC was just short of $7B) (source; source). However, looking at MC might not be the best indicator as it's dependent on daily price. Supply is a better metric here and WBTC leads renBTC with ~184.8k to 11k

units. Further, renBTC supply has been decreasing for the past 7 months (after reaching its ATH of almost 27k units in October 2020), renZEC on the other hand reported a steady growth over the past year (source). The renBTC supply on different DeFi platforms is also in a declining trend (source).

To summarize, usage of wrapping tokens via the RenVM is declining and was never at the same level as WBTC, but the usage of the RenBridge from Ethereum to BSC is strongly increasing (source).
Score: 6

Tokeneconomics

The Tokeneonomics section of the review 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.

Is the token sufficiently distributed? (15 points)

The token distribution can be an indicator of a healthy protocol. When the protocol tokens are widely distributed among different stakeholder groups and contributors, this genuinely improves the coordinating capability of the token and strengthens the resiliency of the protocol. Was the initial distribution balanced between relevant stakeholders? Are the tokens distributed over sufficient participants (10, 25, 100 largest addresses)?

Answer:
REN conducted a private and a public ICO in 2018, where 56.6% of REN's total supply was sold to investors and 8.6% to the public (source; source). Currently REN has slightly over 52k token holders (source). And in a study from December 2020, Ren was actually shown to be one of the most decentralized tokens compared to its peers with a GINI 500 of "only" 55.3% and 166 addresses needed to reach a 50% majority (source).
Score: 15

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

What are the different merits of the token? Is the token useful in the protocol? Does the token allow the holders to participate in governance or influence the protocol in any way?

Answer:
Staking/bonding to secure the network as a darknode operator is currently the only use case for the REN token. 100k REN are required to become a darknode operator, they can earn between 10-20% yield per year on their stake from fees. Stakers are paid in the currency that is being transferred (not in REN token).
Score: 4

Is the issuance model able to improve the coordination of the protocol? (10 points)

To what extent does the issuance of the token support the advancement and function of the protocol? Are the tokens justifiably being issued? Does the issuance model incentivize the right behaviour? Are all relevant stakeholders benefiting from the issuance model?

Answer:
All tokens have been sold in an ICO in 2018 and there is no token issuance model being used. However, the tokenomics are designed to secure the network, which is working as intended. That is, darknode operators are at risk of losing their stake (slashing), should they behave in a malicious way. Furthermore, the tokenomics of Ren incentivize the price to increase/decrease with the usage of the protocol, as the fees collected are going to REN stakers (node operators) and fees are dynamically designed to increase/decrease with the usage (source).
Score: 8

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

A value accrual and distribution mechanism can help improve the merit 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:
Yes, as mentioned above, the token is designed to secure the network through a staking mechanism, that is also used to distribute the fees collected by the RenVM to darknode operators.
Score: 10

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:
Yes, the token is traded on all major centralized and decentralized exchanges. Furthermore, the token can be used on different DeFi protocols (e.g. Aave).
Score: 5

Team

The Team section describes the quality of the team behind the protocol. The current version of Prime Rating favours 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

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:
Yes, the two founders (CEO and CTO), as well as the COO, are public and well-known credible figures in the DeFi ecosystem.
Score: 13

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:
Both founders have extensive experience in building start-ups, programming and the crypto space in general.
Score: 10

Does the team participate and help shape the public debate? (10 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:
The team is visible from time to time, but to a lesser extend when compared to other founders. However, they do participate in keynotes and attend interviews (source). Further, they very frequently communicate on progress and updates via their blog.
Score: 6

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? How well are resources managed and used?

Answer:
The team raised over $32M in their ICO in 2018 and they have been constantly building and delivering new features since their inception. The team has also grown to 35 employees (source).
Score: 10

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.

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:
The core team still holds all keys and has privileged access including a pause function to shut down the Ren network. Besides the other darknode operators, the RenVM relies on 13 core nodes, called the Greycore, to secure the network. The Ren team is still in full control of the Greycore nodes. There is, however, a roadmap for decentralizing the RenVM in the future. Adding new members to Greycore has started with the release of RenVM V0.4 on testnet.
Score: 5

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:
There are currently not many governance capabilities. The usage of the REN token is limited to bonding in order to become a darknode operator and earn fees. All decisions and protocol development are fully covered by the Ren team. The only way to influence the development, seems to be via the forum by writing an RFC (Request for Comment).
Score: 5

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:
As mentioned above, there is not much active contribution possible, besides securing the Ren network and participating in forum discussion.
Score: 1

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. Does the protocol have a formal governance process? How robust is the governance process and does it promote good governance?

Answer:
How to bond REN and set up a darknode is well documented. There are many docs and even a wiki to guide users (source; source).

There is a Ren Improvement Proposal (RIP) process, that is using Snapshot for sentiment checks, but this process has only been used 6 times since its inception in September 2020 (3 of which to increase fees) (source). The RFC (Request for Comment) process that should lead to an RIP is used more frequently.
Score: 5

Governance 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:
There is currently no technical infrastructure to participate in governance related to protocol development, besides signalling on Snapshot (source).
There are, however, some channels for “community members” to participate in discussions: There is a Telegram group, a sub-reddit and a Discourse Forum. There is also a “help” section on the website to directly contact the team.
Score: 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.

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:
Yes, Ren is a legal entity with its headquarters in Singapore (source).
Score: 15

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:
The protocol is based in Singapore, which to the best of our knowledge is a high quality jurisdiction where accountability can be enforced.
Score: 10

Is the protocol (able to become) legally compliant? (5 points)

Is the protocol able to acquire the necessary licenses and supervision to be able to operate in the traditional regulatory environment? Has the protocol already acquired such licenses?
Answer:
Ren was able to conduct an official ICO in 2018 with its company based in Singapore, although there

is not much information found about any licences or supervision, we can assume that Ren is operating legally compliant.
Score: 3

Scorecard

Value Proposition	**Points**
1. Novelty of the solution	**15 / 15**
2. Market fit/demand	**10 / 15**
3. Target Market size	**10 / 10**
4. Competitiveness within market sector(s)	**6 / 10**
Tokeneconomics	**Points**
1. Is the token sufficiently distributed?	**15 / 15**
2. What is the extent of the token's capabilities?	**4 / 10**
3. Is the issuance model able to improve the coordination of the protocol?	**8 / 10**
4. Is the value capture model able to accrue and distribute value?	**10 / 10**
5. Is the token sufficiently liquid to enable active use and trade?	**5 / 5**
Team	**Points**
1. Is the team credible and public? (No, Partly, Yes & Anon , Yes & Public)	**13 / 15**
2. Does the team have relevant experience?	**10 / 10**
3. Does the team participate and help shape the public debate?	**6 / 10**
4. Is the team able to effectively attract and coordinate resources?	**10 / 10**
Governance	**Points**
1. Admin Keys (Yes, Multisig, Multi-sig and Timelock, None)	**5 / 20**
2. Extent of Governance capabilities	**5 / 15**
3. Active Governance contributors	**1 / 5**
4. Robustness of Governance process	**5 /10**
5. Governance infrastructure (rituals, docs, UI)	**5 / 10**
Regulatory	**Points**
1. Does the protocol have any legal accountability?	**15 / 15**
2. What is the quality of the legal jurisdiction?	**10 / 10**
3. Is the protocol (able to become) legally compliant?	**3 / 5**
Total	**171**

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