Fundamental

Prime Rating Report V2.0

Protocol: Pickle Finance

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Previous Report: No previous report

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Season/competition: Season 2

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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:

Pickle Finance launched in the DeFi summer of 2020. Originally a fork of Yearn Finance V1, pickle has since expanded and developed several innovations of its own.

Yield Maximiser

Pickle finance's primary product is a "set it and forget it yield maximiser". This allows users to deposit yield bearing tokens from other platforms into "Pickle Jars". The Pickle protocol automatically compounds any rewards received into the Pickle Jars in order to maximise returns. This compounding is achieved by various strategies, the most common of which is to sell harvested tokens from a yield farm for a 50:50 mix of the two liquidity pair tokens, and then reinvest them into the farm. This compounding strategy greatly increases the return of the farm.

On Ethereum, Pickle Jars are available for a range of yield bearing tokens including decentralised exchange LP tokens from popular protocols such as Uniswap, Sushiswap, and Curve. Pickle claims to select only protocols and farms which are good ideas, have good longevity and chance of growing.

Pickle finance is also available on Ethereum Layer 2 and side chains including Polygon, OKEX, Arbitrum, Moonriver, Aurora, Metis, Moonbeam, and Optimism. Pickle are pioneering in their embrace of Layer 2 technologies and they were the first yield optimizer to deploy on Metis.

It is this Multi-Chain Multilayer strategy, and the curated selection of farms that sets Pickle Finance apart from the competition.

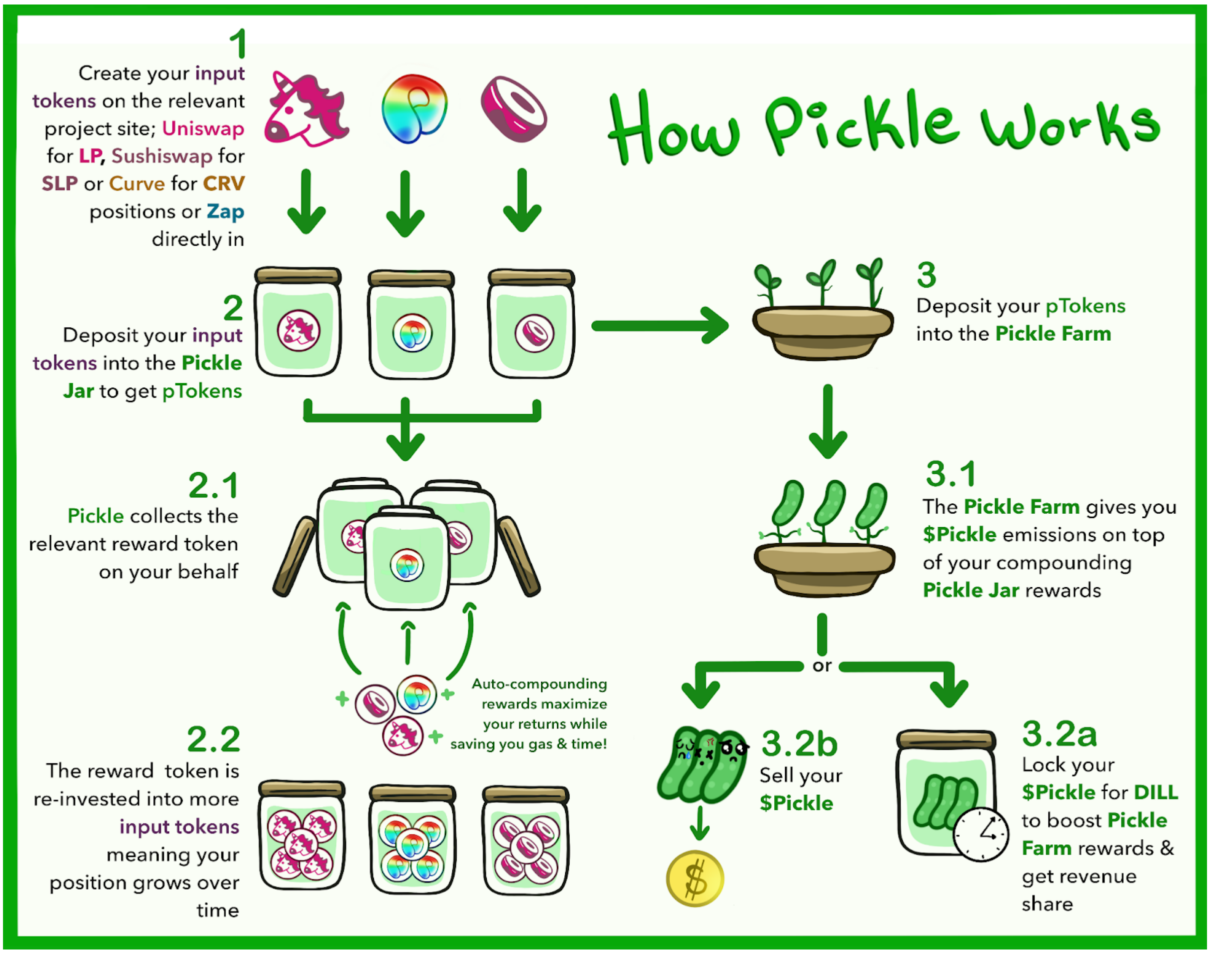
PickleDAO

Pickle is governed by DillDAO, through the PICKLE and DILL governance tokens.

When users deposit in PickleJars they receive pTokens. These pTokens can then be deposited into Pickle Farms which yield PICKLE tokens. These PICKLE tokens can be sold or they can also be locked for a period of up to 4 years to receive DILL tokens. Pickle Finance was an early adopter of this vote locking system, which has since been adopted by several other DeFi protocols.

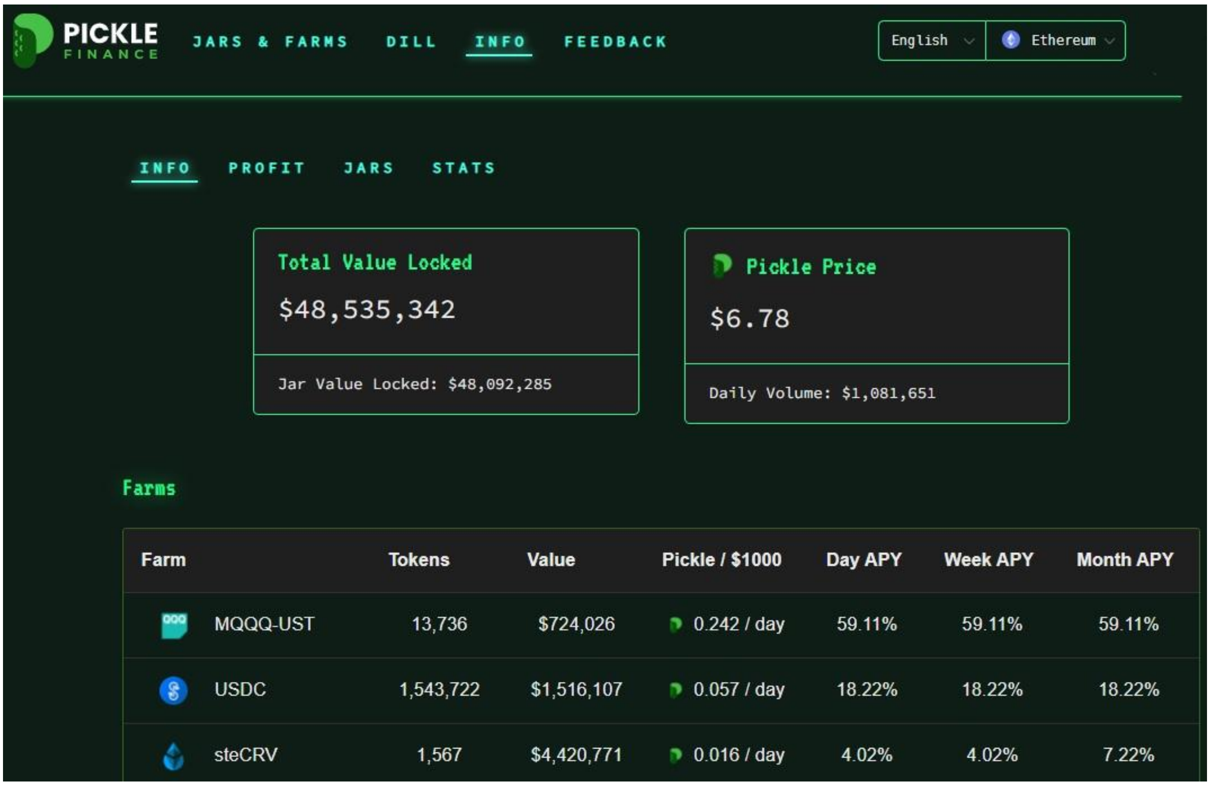
DILL token holders receive three main benefits:

- They receive a boost on their Pickle Farms, increasing the yield of the farms by up to 2.5x.
- They receive a share in 45% of Pickle Finance's revenue, which is used to buy PICKLE on the open market, which is then distributed to DILL holders.
- They can use their DILL to vote on Pickle Improvement Proposals (PIP)



App UI

Finally, Pickle Finance has an appealing minimal, and easy to navigate app design. Switching between the available chains is seamless with just two clicks. The info section is particularly impressive with a plethora of data for all of the available jars, and farms, as well as user specific data showing deposits and earnings.



While the core product of Pickle Finance is not novel, it is well executed. Pickle Finance have also been early adopters in DAO governance strategies and in deploying on Ethereum Layer 2 solutions.

Score: 13

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:

There are 3 main advantages to Pickle Finance's yield maximisation strategies.

- Save time - Users do not have to harvest, swap and deposit themselves.
- Save gas - Pickle finance pays the gas fees for their strategy's transactions

- Prevent a potential taxable event - In certain jurisdictions every harvest transaction is classed as taxable events, and would diminish potential gains from a compounding strategy. By using PickleJars, only the final withdrawal will be a taxable event

These could be utilised by anyone who has a yield bearing token from any of the supported farms.

However, user adoption of these yield maximisers is relatively low. Looking at one of the largest Pickle Jars, Sushi ACLX/ETH, the TVL in Pickle is around 8 % of the total liquidity in the pool on Sushiswap. Most other Jars hold a much smaller share of the TVL. Yearn Finance shows similar adoption rates, with Yearn Vaults holding less than 10 % of the liquidity in the available pools, with most pools holding less than 1 %.

Pickle Finance has also jumped on the emerging Ethereum Layer 2 technologies and has become a pioneer in deploying on those chains. This multi-chain multilayer strategy opens up the protocol to even more users, and being a first mover onto these chains is a significant advantage over competitors.

The PICKLE and DILL tokens offer holders a share in the revenue of Pickle Finance. Therefore, holders are rewarded as the protocol succeeds. This can provide consistent rewards and can be considered a fee rebate for users.

Score: 12

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:

The target market for Pickle Finance is any liquidity provider for any of the supported farms.

As Pickle finance grows to include more farm options on more chains the available market increases also. If more users migrate to using Ethereum Layer 2 solutions, Pickle Finance will already be available to them as a yield optimiser.

The yield optimization market is currently worth over $10 billion. Similar yield optimization protocols such as Yearn Finance and Beefy Finance have billions of dollars of total value locked (TVL).

Furthermore the TVL of DEXs has doubled over the past year. As more users become liquidity providers and DEXs continue to grow Pickle Finance offers a simple solution for those users looking to maximise their returns.

“Set it and forget it” passively managed funds are common In traditional finance. These funds encourage investors to invest in a basket of stocks and bonds and then automatically reinvest the dividends earned. One example is Vanguard which has $ 7.3 trillion under management. If these DeFi protocols could use their technology outside of the crypto industry, the market size is enormous.

Score: 10

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:

Pickle Finance is an established player amongst yield maximiser protocols, with around 6000 users and $50 million in TVL as of writing.

However, this is relatively small when compared to the market leaders on Ethereum, such as Yearn Finance ($4 billion TVL), and on multiple chains, such as Beefy Finance ($1 billion TVL). This strong and established competition may make it difficult for Pickle to attract more users.

The PICKLE token has around a $13 million market cap (MC), 1000 holders, and $1 million trading volume. This is very small compared to Yearn ($880 million MC) and Beefy ($150 million MC).

Score: 4

e) Integrations & Partnerships (15 points)

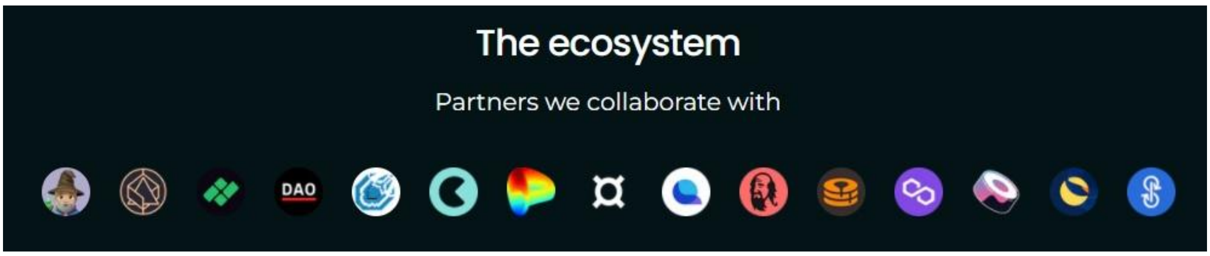
Due to crypto's open-source nature, the code of most protocols can easily be forked. This score represents a piece of "unforkable value". Some indicators to look at are the number of applications built on top of the protocol (vertical integration), other entities integrating the protocol's services (horizontal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

Answer:

In November 2020 Pickle partnered with Yearn Finance, the market leader in yield optimisers at the time. This partnership was formed to merge Pickle Jars & Yearn's v2 Vaults and "to reduce duplicate work, increase specialization, and to leverage shared expertise."

When asked about the current relationship between Yearn and Pickle in the Discord server, team member Bwar responded "We are like Gondor and Rohan. Friends that come to each other's aid when in need. But we aren't working on anything together currently."

In addition to Yearn, Pickle currently collaborates with high value and well known protocols for their farms including Curve, Terra and Bankless.



Score: 12

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.

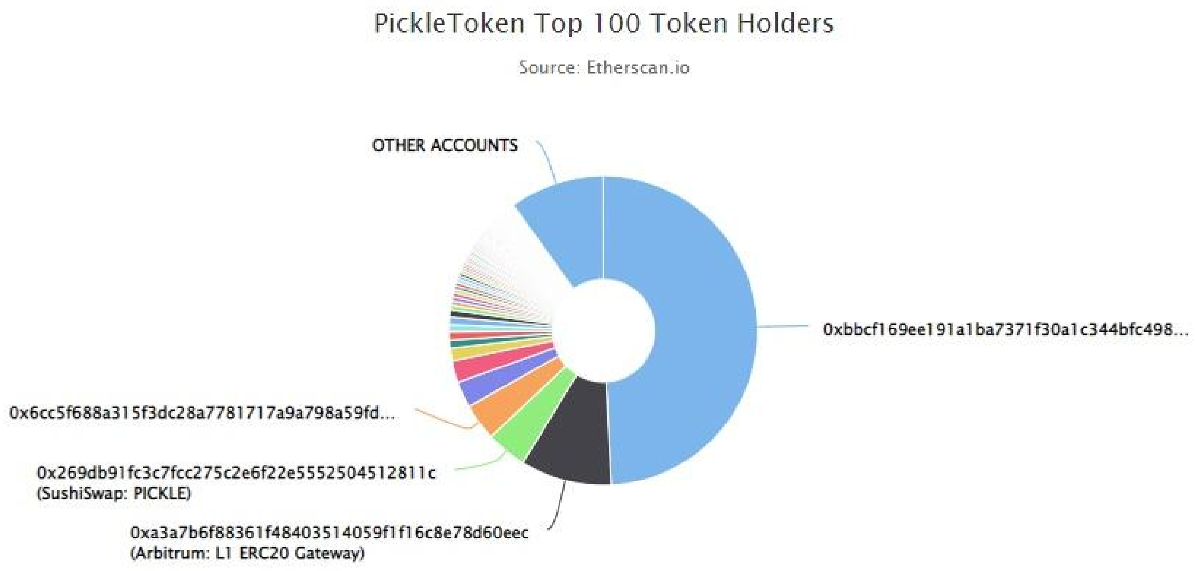
a) Is the token sufficiently distributed? (15 points)

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)?

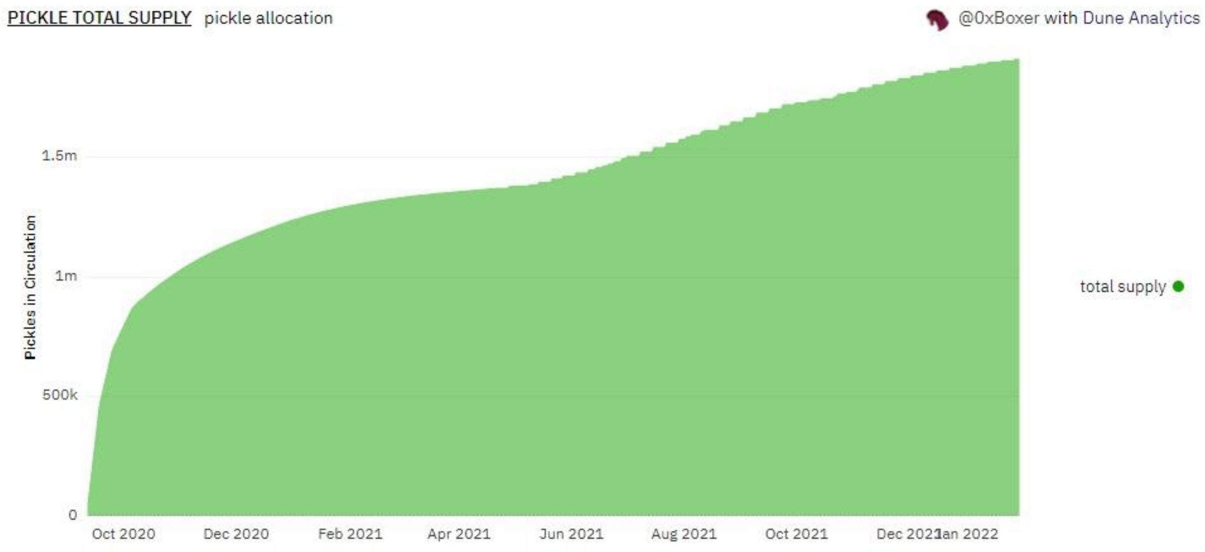
Answer:

PICKLE

There are currently [7,400 PICKLE holders]() and a circulating supply of around 1.9 million. 50% of all PICKLE is currently locked for DILL. The other largest holders appear to be exchanges and bridging contracts. Otherwise, PICKLE is reasonably distributed amongst individual holders.



PICKLE emissions are currently 0.1 PICKLE per block, or around 4500 per week. The total [historic circulating supply]() is shown below:



DILL

There are currently 866 DILL holders with a total supply of 777,000 DILL. However the DILL tokens are not widely distributed, but concentrated amongst a small number of DILL whales. The top DILL holder holds 63,000 DILL and controls 8 % of the supply. The top 17 DILL holders control over 50 % of the supply. Due to the voting power of DILL tokens these DILL whales can have an outsized influence over governance of DillDAO.

Score: 5

b) 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:

The PICKLE token can only be locked for DILL, sold, or used as an LP pair in the PICKLE/ETH pools on Uniswap and Sushiswap. The value of the PICKLE token is therefore directly related to the value gained from locking to receive DILL and the benefits that provides.

DILL token holders receive three main benefits:

- They receive a boost on their Pickle Farms, increasing the yield of the farms by up to 2.5x.
- They receive a share in 45% of Pickle Finance's revenue, which is used to buy PICKLE on the open market, which is then distributed to DILL holders.
- They can use their DILL to vote on Pickle Improvement Proposals (PIP), and the distribution of PICKLE rewards amongst the Pickle Farms.

Score: 7

c) Is the issuance/distribution 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 behavior? Are all relevant stakeholders benefiting from the issuance model?

Answer:

The emission of PICKLE tokens to the Pickle Farms puts the tokens into the hands of users. Locking PICKLE for long periods to receive DILL and boosted Pickle Farm yields encourages holders to take PICKLE off the open market and rewards them for participation in the protocol.

The revenue sharing to DILL holders also incentivises holders to work towards long term sustainable growth of the protocol.

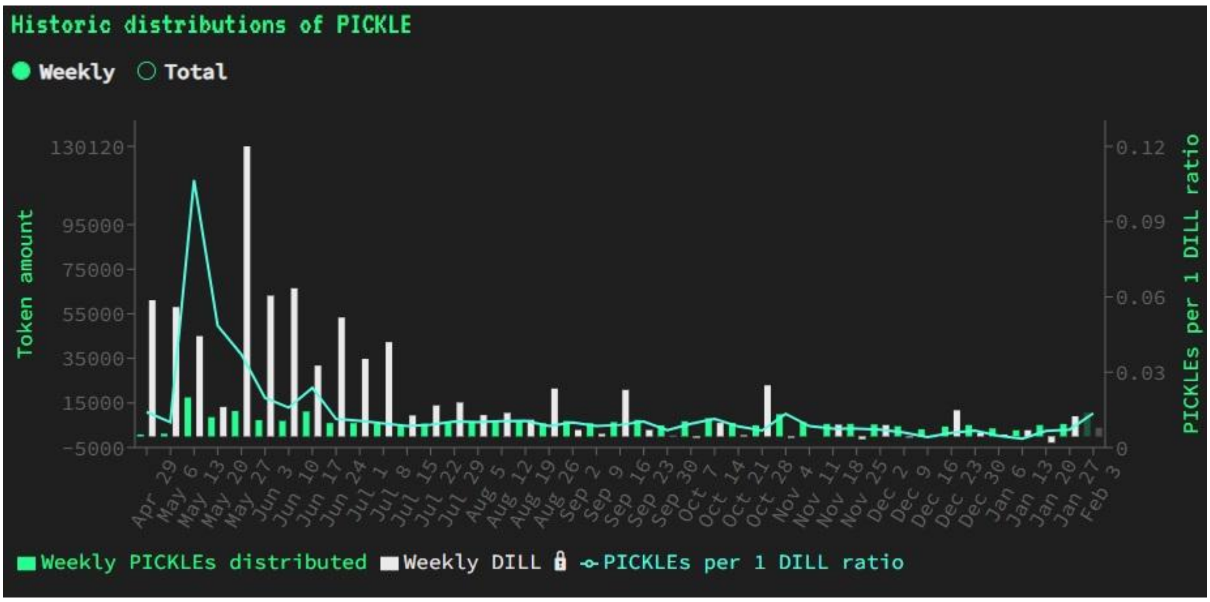
Score: 10

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:

45% of the revenue of Pickle Finance is paid to DILL holders. The chart below shows the weekly locked DILL and PICKLE emissions to DILL holders:



The distribution of PICKLE to DILL holders is usually in the 3 - 10 million PICKLE range. This revenue sharing allows DILL holders to share in the success of Pickle finance and incentivises them to coordinate towards growing the protocol.

The additional benefits for locking away PICKLE for long periods also helps stabilise the price of PICKLE and incentivises stakers to work towards the long term success of Pickle Finance.

Score: 10

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:

The PICKLE token is available as a PICKLE/ETH trading pair on Uniswap and Sushiswap. PICKLE tokens are listed on a number of centralised exchanges, including on OKX, Bilaxy, MXC, AEX and Hotbit. PICKLE has a very low trading volume of around $1,000,000 per day, the majority of which comes from the OKX exchange.

The DILL token is not transferable and cannot be traded or even exchanged between wallets.

Score: 2

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:

The PICKLE token has very limited use outside the PICKLE protocol and other than to provide liquidity to the PICKLE/ETH pools on Uniswap and Sushiswap.

The DILL token, by design, only has use within the Pickle Finance protocol and for DillDAO governance.

Score: 1

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:

Pickle Finance was founded by four anonymous developers: The leading representative "Larry the Cucumber", "Rick" who left the project early, and "0xPenguin" and "BigBrainBriner", who stepped away in December 2020.

The core team now consists of many members. DillDAO is lead by the Select Committee on Continuing Operations and Compensation (SCCOC), consisting of 9 members: Larry the Cucumber, two members of the Core team, appointed by Larry the Cucumber, and six members of the DILL DAO, who are elected by DILL holders after an internal nomination process.

Score: 7

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:

Larry the Cucumber has said that he has previous experience in web development and Android mobile app development. The team have worked closely on technical projects with other well known protocols such as Yearn Finance.

Additionally Pickle Finance was the victim of an Evil Jar attack in November 2020. This attack was identified, reverse engineered, and patched within 24 hours. This demonstrates a high level of knowledge and skill amongst the Pickle team. Similarly their ability to deploy on new chains ahead of other protocols, shows their technical flexibility.

However, due to their anonymity, it is difficult to evaluate their experience outside of Pickle Finance

Score: 8

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:

Due to the anonymous nature of the team, it is difficult to see how they participate with the wider public debate. However, the Pickle Finance discord server is very active and the team openly participates in discussions with other users. When questions are raised the team is responsive and information is shared openly.

Score: 3

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:

According to an October 2021 Medium post the SCCOC who help direct DillDAO and Pickle Finance, have a $ 2.5 million budget. With these resources they are able to pay their teams and continue to appoint more team members. Despite the small team, Pickle Finance shows sustainable growth, and has the resources to meet its near term goals. There is no mention of external funding sources and it is unclear whether Pickle Finance has received outside investment.

Score: 8

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:

As stated in the Timelock and Multisig section of the docs, the admin functions of the MasterChef contract that controls $Pickle emissions has a 24 hour timelock, and the functions of the PickleJars have a 12 hour timelock. The timelock is also publicly watchable.

The timelock contracts must be executed through a 2/5 community multisig wallet. The current multisig keyholders are as follows:

Manage Safe Owners

Add, remove and replace owners or rename existing owners. Owner names are only stored locally and never shared with Gnosis or any third parties.

NAME ↑	ADDRESS
Anon	0xb4522eB2cA49963De9c3dC69023cBe6D53489C98
Celo	0xDb444c4Ef56b4DF8A33620bB91B0c58Bf59e0Edc
Jintao	0xBB2281cA5B4d07263112604D1F182AD0Ab26a252
LKJ	0x5c4D8CEE7dE74E31cE69E76276d862180545c307
Larry	0xaCfE4511CE883C14c4eA40563F176C3C09b4c47C

Score: 14

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:

Two main governance actions are regularly practised, voting on the distribution of farm rewards and voting on Pickle Improvement Proposals (PIP).

The distribution of pickle farm rewards is voted on weekly. A history of these votes was not available.

PIPs are voted on when they are put forward after suggestion in the pickle forums. To date there have been 48 PIP votes. These votes have been on topics including changing pickle emission rates, appointing and compensating team members, and whitelisting other organisations to be dill holders.

The PIP votes seem to be limited in scope and do not seem to have any influence on the broad strategy of the protocol. However, elections have been held to appoint a select committee. This select committee appears to have broader control over the direction of the protocol and how funds are spent. A monthly report has been published by Cipio since October 2021.

Score: 12

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:

Governance is active and there is some debate, however it seems to be a relatively small group. DillDAO claims to have 6000+ users but a look at the latest governance votes shows just 50-100 voters.

The latest proposal, "[PIP-48] (Re-Vote) Whitelisting veToken Finance" is reasonably representative of votes in late 2021. This proposal passed unanimously with 330K Dill from 70 voters. However the top 4 voters alone account for 55 % of the vote. The apparent inequality in DILL distribution, coupled with low turnout, suggests a small cartel of dill whales could easily direct any vote in their favour.

An elected committee of 9 members has the main role in deciding the direction of the protocol.

Score: 3

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:

Initial PIPs are proposed on the forum. Here, the proposals can be openly discussed. Once they are approved they are forwarded to snapshot.org where the proposal is described in detail and the vote is held. The results of the vote are then actioned by the team.

The discord server is active and has dedicated channels to governance and DillDAO discussions.

Score: 10

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:

Governance of Pickle Finance takes 3 forms:

- Pickle Improvement Proposals - Formal proposals suggested on the forum and voted on via snapshot. These votes have included changes to token emissions, whitelisting platforms as DILL holders and committee elections.

- Select Committee on Continuing Operations and Compensation (SCCOC) - a committee of 3 team members and 6 elected members of the community who have control over the budget and a say in the strategy of Pickle Finance and DillDAO.

- Informal discussion via Discord server - The Discord actively discusses a wide range of topics and Pickle Finance members are active within it. There are dedicated channels for governance and DillDAO discussions.

Score: 9

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:
No legal entity or mechanism for accountability was easily found in the public documentation. DillDAO is a decentralised organisation.

Score: 0

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:
The legal jurisdiction of Pickle Finance is not shown in the public documents. DillDAO is a decentralised organisation.

Score: 0

Scorecard

1. Value Proposition	Points
a) Novelty of the solution	**13 / 15**
b) Market fit/demand	**12 / 15**
c) Target Market Size	**10 / 10**
d) Competitiveness within market sector(s)	**4 / 10**
e) Integrations & Partnerships	**12 / 15**
Total Points - Value Proposition	**51 / 65**
2. Tokeneconomics	**Points**
a) Is the token sufficiently distributed?	**5 / 15**
b) What is the extent of the token's capabilities?	**7 / 10**
c) Is the issuance model able to improve the coordination of the protocol?	**10 / 10**
d) Is the value capture model able to accrue and distribute value?	**10 / 10**
e) Is the token sufficiently liquid to enable active use and trade?	**2 / 5**
f) Are there any extrinsic productivity use cases?	**1 / 10**
Total Points - Tokenomics	**35 / 60**
3. Team	**Points**
a) Is the team credible and public? (No, Partly, Yes & Anon , Yes & Public)	**7 / 15**
b) Does the team have relevant experience?	**8 / 10**
c) Does the team participate and help shape the public debate?	**3 / 5**
d) Is the team able to effectively attract and coordinate resources?	**8 / 10**
Total Points - Team	**26 / 40**
4. Governance	**Points**
a) Admin Keys	**14 / 20**
b) Extent of Governance capabilities	**12 / 15**

c) Active Governance contributors	**3 / 5**
d) Governance infrastructure	**10 /10**
e) Robustness of Governance process	**9 / 10**
Total Points - Governance	**48 / 60**
5. Regulatory	**Points**
a) Does the protocol have any legal accountability?	**0 / 15**
b) What is the quality of the legal jurisdiction?	**0 / 10**
Total Points - Regulatory	**0 / 25**
Total	**160 / 225**

About the Author: @SlamBadley Crypto detective, with a dark academic past