

Fundamental

Prime Rating Report V2.0

Protocol: Curve

Version:

Previous Report: [Previous Report](#)

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Season/competition: Season 2 / rate-athon #2

Instructions

Please go to files and make a copy of this template.

Fill in all questions with a written explainer, any relevant links, and score per variable. Insert the scores in the scorecard at the end of the report.

Please include your sources into the text (as a link), so others can follow your trail of thought.

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: Curve is a DEX designed to enable extremely efficient swaps between stablecoins, offering very low slippage, i.e. a very high certainty that trades will go through at the quoted price. Curve is able to achieve this by a special Stable swap algorithm designed for similar priced assets. It was built by [Michael Egorov](#) and launched in [January of 2020](#). Currently it is the second largest DeFi protocol by TVL (with \$10.84B) according to [DeFi Pulse](#). Curve, beyond providing very low trading fees, also supplies its liquidity to yield earning protocols behind the scenes, boosting the revenue for liquidity providers significantly.

The [CurveDAO](#) was launched together with the native token in August of 2020 introducing a new governance and staking model, only staked governance tokens would be able to participate in the governance process as well as participating in the protocol revenue sharing. Furthermore, in this voting escrow system stakers would be rewarded for locking their tokens for a longer period of time, the longer they would be locked the more weight their tokens would receive in both governance and

revenue share. Curve was pioneering this system which is now being copied by many other DeFi protocols.

Curve has [added](#) a lot of new features, new pools and most notably enables everyone to create new liquidity pools called [factory pools](#) for metaUSD or metaBTC assets.

Score: 14

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: Curve provides the most efficient way in DeFi to swap between stable coins, which is a really important functionality to provide efficient balanced markets all [across DeFi](#), where stable coins in all their different flavours play such an integral part. And Curve being the [second largest DeFi protocol](#) after Maker is demonstrating clear product market fit. Though it has to be said that even if Curve has high TVL and trading volume (second in DeFi according to this [dune dashboard](#)) the number of traders is very low (12th on the list on the same dashboard), meaning few trades with high volume. On a small note: the UX design, with a very 80ies style look is not the most user friendly.

Score: 15

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: As the biggest DEX in DeFi for stablecoins which in DeFi have a total market cap of [\\$173B](#), Curve still has substantial potential for growth, even while being the biggest DEX over all with \$10B TVL and [\\$180B 24h trading volume](#), 2nd among DEXs in trading volume with \$200m, according to this [dune dashboard](#). When looking at currency exchanges in TradFi their daily trading volume is \$6.6B.

Score: 9

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: As the number one DEX for stable coins it is very competitive, even with some protocols forking the code of Curve, their position as market leader in stablecoin trading was never [really](#)

[challenged](#). With regards to TVL, Curve is ahead of all other DEXs in DeFi and is 2nd in 24h trading volume, as well as [third in DEX generated revenue](#) after Uniswap and Sushiswap as of writing this. When considering that Curve is concentrating on a DEX niche it shows that they control this (stable swap, similar priced assets) niche within DeFi, while staying competitive among allround DEXs revenue and liquidity.

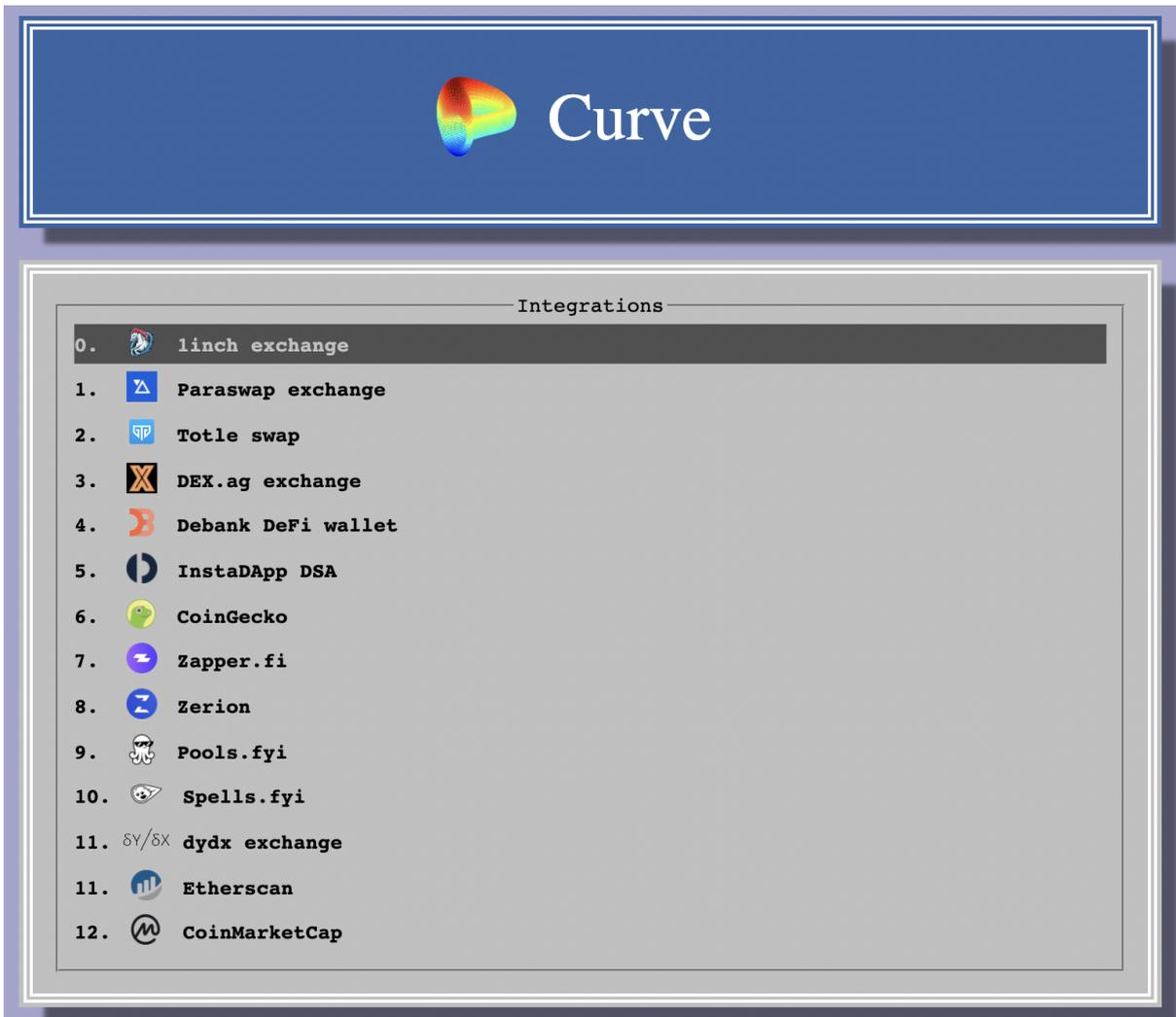
Score: 10

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: Countless stablecoins are integrated in the curve protocol, most notably though there is a symbiotic relationship between Yearn and Curve, in which Yearn is driving liquidity to Curve, but there is no official partnership, however the founder of Yearn [Andre Cronje](#) lists Curve as projects he worked on, [on linkedIn](#). Curve's liquidity pool infrastructure is permissionless, and can be deployed by any user, even enabling them to apply for CRV rewards, which makes the protocol an integral part of the DeFi infrastructure.

The integrations of Curve in other DeFi protocols as listed on the [Curve website](#):



Score: 14

2. Tokenomics

The Tokenomics 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: From Curve Docs: "The total supply of 3.03b is distributed as such:

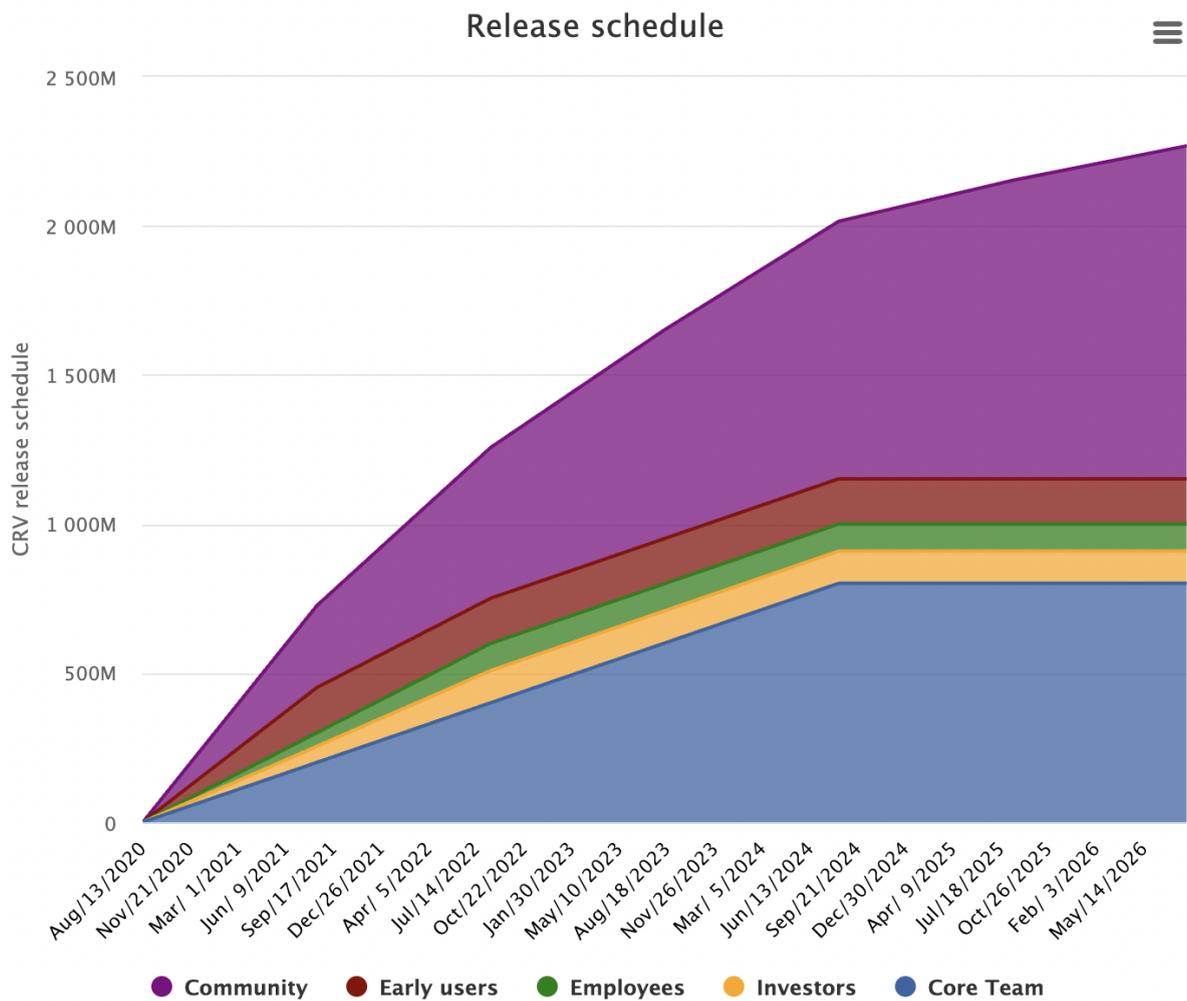
- 62% to community liquidity providers

- 30% to shareholders (team and investors) with 2-4 years vesting
- 3% to employees with 2 years vesting
- 5% to the community reserve

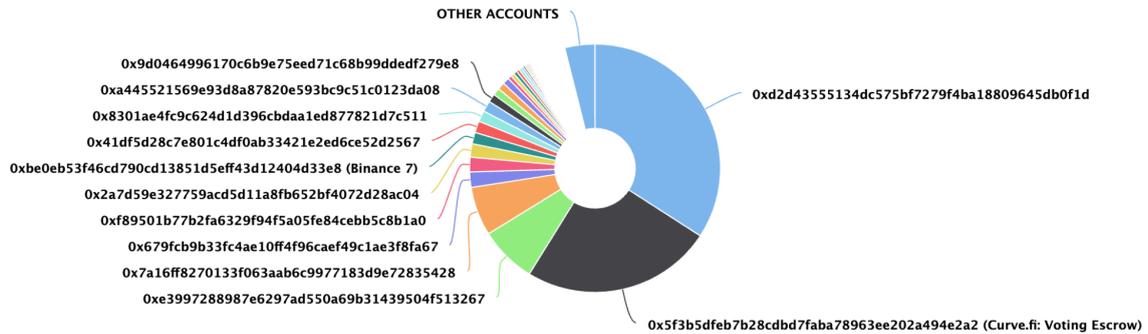
The initial supply of around 1.3b (~43%) is distributed as such:

- 5% to pre-CRV liquidity providers with 1 year vesting
- 30% to shareholders (team and investors) with 2-4 years vesting
- 3% to employees with 2 years vesting
- 5% to the community reserve

The detailed release schedule can be found [here](#).



Currently there are close to [64,000 token holders](#) of the CRV token with the top 100 addresses controlling 96.11% of the total supply.



With currently more than 50% controlled by vesting escrow contract (~35%), and the voting escrow contract (~25%).

The distribution is very user focused and the amount of tokenholders is very high, but the aggregation of most of the tokens among few addresses prevents the author from giving the full points.

Score: 12

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 token enables its holder to participate in governance of the protocol, as well as participate in the protocol revenue through staking. By locking the tokens for a certain amount of time, the token holder gains voting power and revenue participation rights that are correlated to the length of the commitment. This ensures a long term alignment between token holders and protocol.

Score: 8

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 distribution of CRV rewards is split between liquidity providers, staking their LP tokens in gauges (liquidity incentives), and veCRV holders (participants in governance). The distribution incentivises participation in the protocol, as well as liquidity provision, which are both integral functionalities for a healthy DEX 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: Fees are charged for swaps and shared between LPs and the protocol. The fees accrued by the protocol are shared among the veCRV token holders, (i.e. CRV holders which committed their CRV tokens for a certain amount of time). All together, this is a solid value capture model which ensures participation in governance and long term alignment of token holders with the protocol.

Score: 9

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: According to [Coingecko](#), the token is listed on over 200 DEXs and all of the top tier CEXs. Providing ample ability to swap and trade the token across all platforms.

Score: 5

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: CRV can be used for LPing on most DEXs in DeFi, it can also be used as collateral on [Aave](#). As well as staking CRV through a couple of protocols trying to control a meaningful share to influence Curve governance such as [Convex](#) and [Yearn](#) ([Curve wars](#) - more details in the Governance section).

Score: 9

3. 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

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 not public, although the creator is public, [Michael Egorov](#), who has a track record of founding a company through YCombinator. Additionally, this was disclosed by him to "CryptoBriefing", five of the team members are, Angel Angelov and Ben Hauser (developers), and three community managers, "Charlie," "Kendrick Lama," and "Chris".

Score: 11

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 creator [Michael Egorov](#) has relevant experience and the success of the protocol after over 2 years speaks for the full team. As this is one of the oldest protocols in DeFi.

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: As Curve is part of:

- Is part of the Global DeFi Alliance, created by Huobi (15-9-2020).
- Partners with Alpha Homora (11-1-2021).
- Someone on the Curve team is one of the multi-sig holders for the Polygon contracts (15-5-2021).
- is part of the DeFi for the People initiative by Celo (31-8-2021)."

according to [DYOR](#). The team is very well trying to advance the space as a whole.

Score: 4

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: Prior to launch, Curve was able to [raise](#) funds in a private round for the development of the platform. However, it is unclear how much and from whom, other than [Joulien Bouteloup](#). Due to the successful two years that the protocol has had, the author is inclined to say that they were very effective in coordinating the available resources.

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: From the [curve docs](#):

Are there admin keys for Curve contracts?

Admin keys allow the Curve team to pause the contract in an emergency for the first two months.

Smart contracts cannot be upgraded with the admin key. This limits actions in a case of emergency but leaves users fully in control of their funds.

Curve will be transitioning to a DAO to be fully decentralized with the help of the CRV token.

As of late 2020 the transition to the CurveDAO was completed, there are now no admin keys.

Score: 20

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: Curve is fully decentralized and the protocol is fully controlled by the CurveDAO. [Governance](#)

controls the CRV allocation to pools through the gauges, listing of assets on the exchange, changing the fees on Curve native pools (factory pool fees are controlled by their creator - 50% of those fees go to the protocol) as well as how the [DAO functions](#).

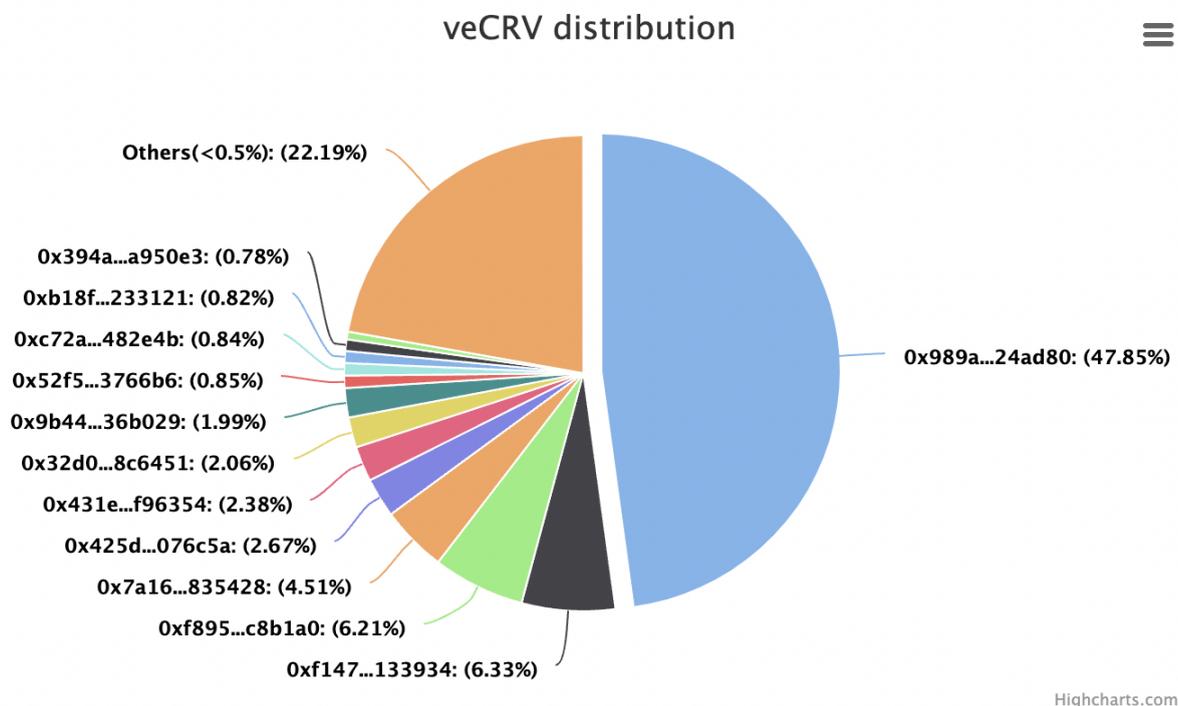
Score: 15

c) Active Governance contributors (5 points)

Governance is a process that can be rather resource-intensive if executed well. To ensure good governance is practised 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?

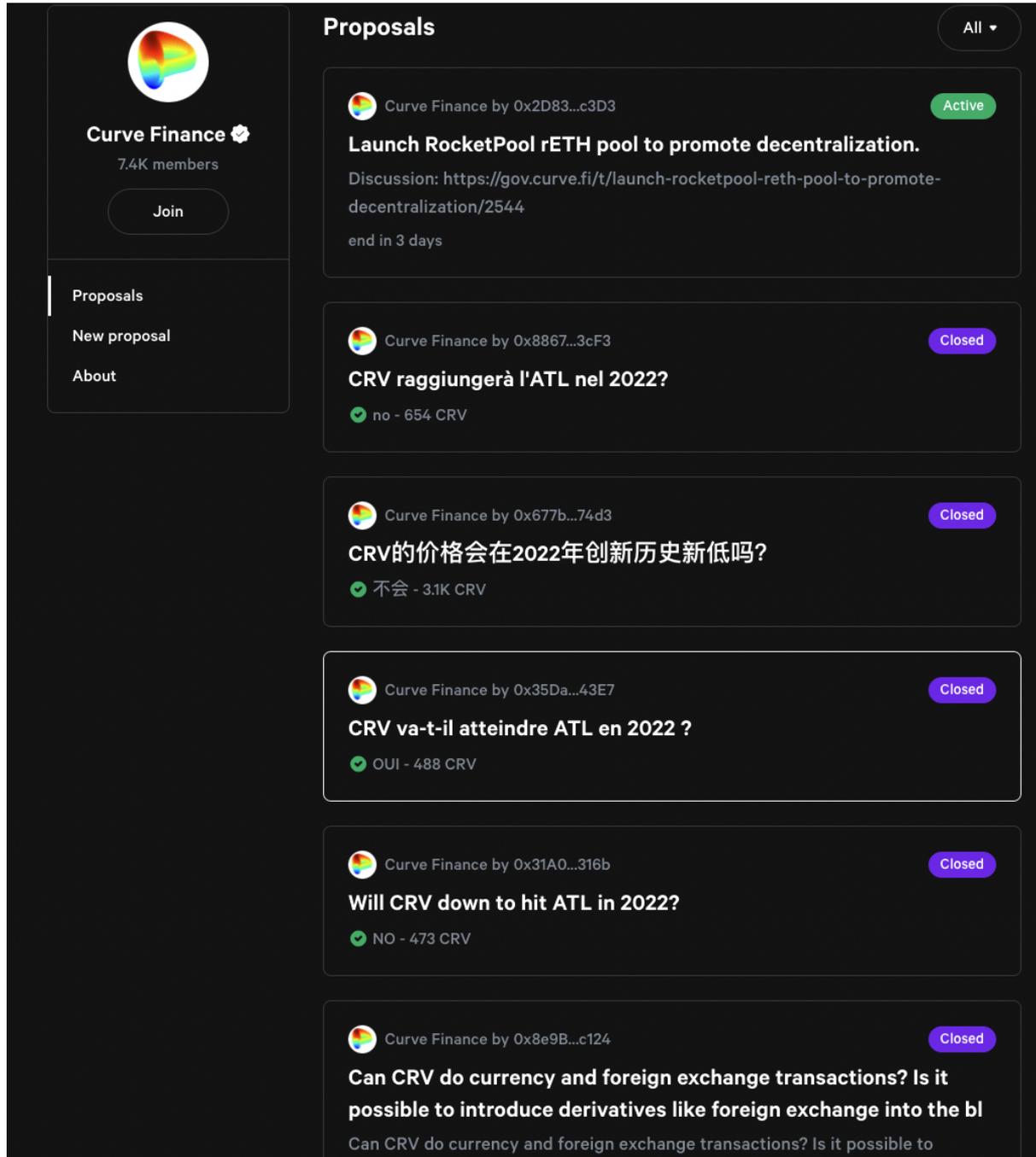
Answer: In the past 3 months, there were ~30 proposals voted on in the Curve DAO with a mean participation of roughly 55% of veCRV token holders. The number of addresses voting is ~10. One of which is from [convex.finance](#) which at the time of writing holds ~48% of veCRV. Convex is a CRV lock pool boosting CRV rewards with their own governance token very effectively coordinating CRV influence. Next to convex.finance, Yearn and StakeDAO were battling for governance control of Curve in the [Curve Wars](#) ([Bankless Podcast from 01/2022](#)) through proprietary CRV staking programs, boosting revenue for the stakers with their own governance token for example. Convex has currently emerged victorious from this battle and is currently in control of ~48% of the veCRV distribution.

[From curve website:](#)



This shows a very limited decentralisation effectively, even if the discord has 21k members and 63000 CRV holders, effectively only about 10 addresses split the voting power controlling the protocol.

[Snapshot](#) activity is really high but seems to have been taken over by spam polls:



The screenshot displays the Curve Finance governance page. On the left, there is a sidebar with the Curve Finance logo, a 'Join' button, and navigation links for 'Proposals', 'New proposal', and 'About'. The main area is titled 'Proposals' and features a dropdown menu set to 'All'. Below this, a list of proposals is shown, each with a title, author, status, and a poll result. The proposals are:

- Launch RocketPool rETH pool to promote decentralization.** (Active) Discussion: <https://gov.curve.fi/t/launch-rocketpool-reth-pool-to-promote-decentralization/2544> end in 3 days
- CRV raggiungerà l'ATL nel 2022?** (Closed) no - 654 CRV
- CRV的价格会在2022年创新历史新低吗?** (Closed) 不会 - 3.1K CRV
- CRV va-t-il atteindre ATL en 2022 ?** (Closed) OUI - 488 CRV
- Will CRV down to hit ATL in 2022?** (Closed) NO - 473 CRV
- Can CRV do currency and foreign exchange transactions? Is it possible to introduce derivatives like foreign exchange into the bl** (Closed) Can CRV do currency and foreign exchange transactions? Is it possible to

And the [forum](#) shows not a lot of diverse activity in the past year with only a few active contributors.

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 governance infrastructure comprises [on-chain DAO](#) mechanism connected by Aragon, signal voting via [snapshot](#) (~7k members, although seems to have been taken over by spam surveys), a Discord server (~21k members) and a [forum](#).

The voting mechanism is on-chain and very robust, the veCRV balances at the blocktime of the proposal creation define the voting power of a given address, so buying influence after reading a proposal is not possible, one would have to anticipate this.

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: The process is layed out [here](#), including [detailed instructions](#) on how to structure a governance proposal, as well as [explaining](#) how the voting escrow mechanism and voting in the DAO works exactly. This in combination with the voting happening totally on-chain provides a very robust gov. process

Score: 10

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: The [Swiss Stake GmbH](#) is the legal entity of the Curve team, with the principal Michael Egorov, incorporated in Zug, Switzerland.

Score: 12

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 is Switzerland.

Score: 10

Scorecard

1. Value Proposition	Points
a) Novelty of the solution	14 / 15
b) Market fit/demand	15 / 15
c) Target Market Size	9 / 10
d) Competitiveness within market sector(s)	10 / 10
e) Integrations & Partnerships	14 / 15
Total Points - Value Proposition	62 / 65
2. Tokenomics	Points
a) Is the token sufficiently distributed?	12 / 15
b) What is the extent of the token's capabilities?	8 / 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?	9 / 10
e) Is the token sufficiently liquid to enable active use and trade?	5 / 5
f) Are there any extrinsic productivity use cases?	9 / 10
Total Points - Tokenomics	53 / 60
3. Team	Points
a) Is the team credible and public? (No, Partly, Yes & Anon , Yes & Public)	11 / 15
b) Does the team have relevant experience?	8 / 10
c) Does the team participate and help shape the public debate?	4 / 5
d) Is the team able to effectively attract and coordinate resources?	8 / 10
Total Points - Team	31 / 40
4. Governance	Points
a) Admin Keys	20 / 20
b) Extent of Governance capabilities	15 / 15
c) Active Governance contributors	2 / 5
d) Governance infrastructure	10 / 10
e) Robustness of Governance process	10 / 10
Total Points - Governance	57 / 60

5. Regulatory	Points
a) Does the protocol have any legal accountability?	12 / 15
b) What is the quality of the legal jurisdiction?	10 / 10
Total Points - Regulatory	22 / 25
Total	225 / 250

About the Author: Valp