Additional insights from web3 reward emission research

We are currently undertaking a large-scale research effort to create better frameworks for token mechanics especially for web3 protocols in the hardware resource provisioning sector.

We have recently published part one, where we have compared emission schedules of various web3 networks, including of course Hopr network. You can find the report here.

We wanted to share some additional data with the Hopr community though, that is not in the report.

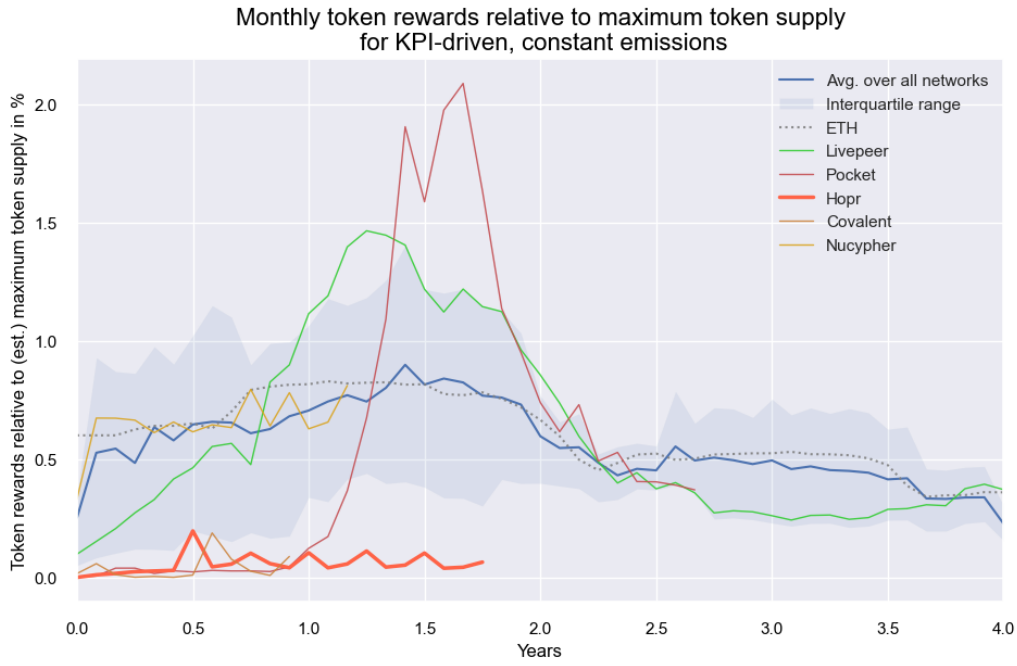
First off, we have classified Hopr's token rewards to be in the category of KPI-driven and constant emissions. This is mainly based on the statements here that mention a constant reward emission over two years (total of 250 M HOPR) being subject to network conditions and governance together with the current staking rewards program that doesn't emit rewards based on a fixed time-schedule. However, the emission schedule could also be classified as KPI-driven, decaying given the constant monthly emissions that are supposed to 'decay to 0 (abruptly)' after two years.

Within that category there are currently also the following projects we analyzed:

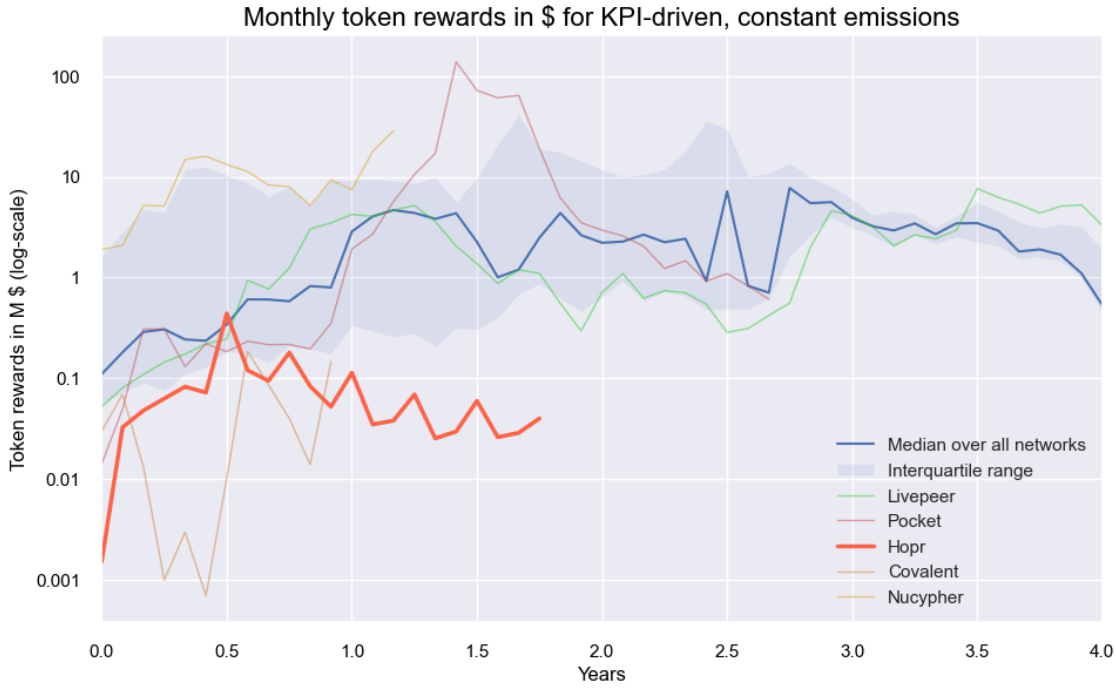
- Pocket
- Livepeer
- Nucypher
- Covalent

In comparison to the other projects in this category, Hopr's token reward emissions relative to the total supply are quite low (<0.1%) and rather flat (small spikes reflecting the claim events of the stake-season events). It will be interesting to see how this will change when cover traffic is enabled (the two year release-schedule for cover traffic would come at flat monthly emissions of ~1% of total supply).

Below chart shows the average (blue line) and the interquartile range (blue shaded) of the monthly token rewards of all Web3 infrastructure networks together with the projects of the KPI-driven and constant emissions category highlighted:



In line with the token rewards, those converted into dollar-values are also at the lower end of the category spectrum, ranging 30-40k $ over the last six months:

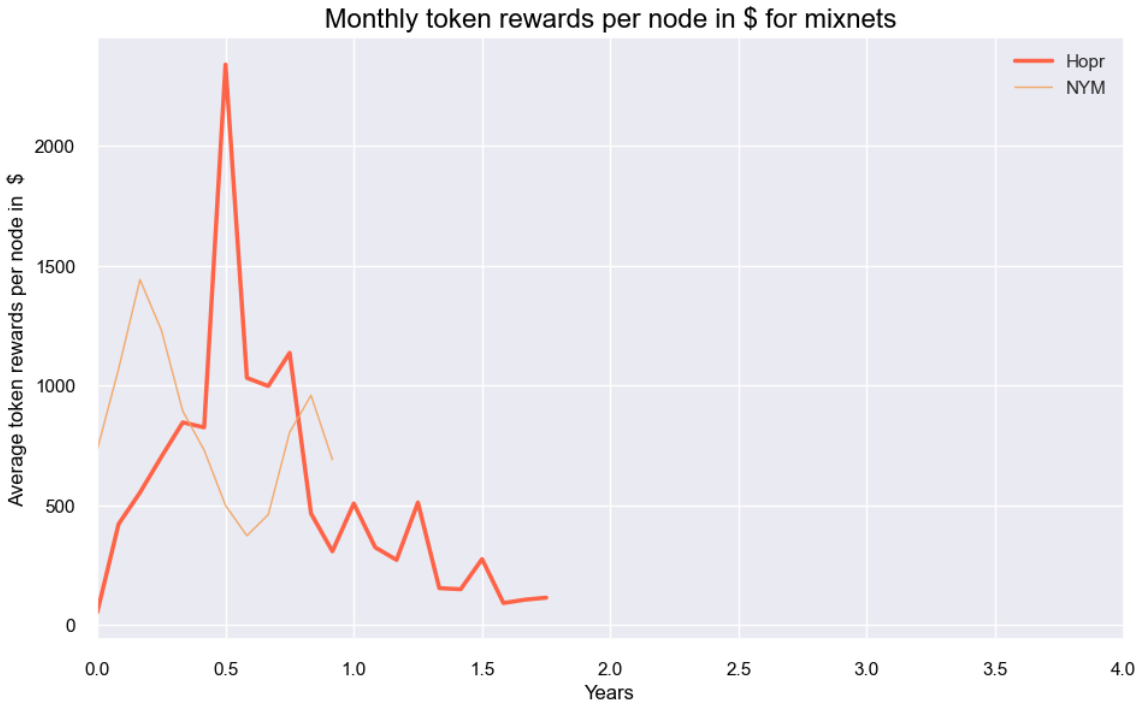


A large impact on these different trajectories is the 2021 bull market and its tailwind on prices (impacting Nucypher, Pocket and Livepeer). The impact on Hopr is more on the opposite - the headwind of the following market downturn.

For Hopr it might actually be more relevant to compare it to the networks providing similar services versus comparing it to projects with similar token emissions. So here we go:

One major difference is that we weren't able to separate the rewards for delegates on NYM, whilst delegation on Hopr isn't live and hence not included in the shown rewards. Otherwise, there are quite some similarities: NYM also allocates 25% of their total supply for mixnode-rewards, the schedule-category is also KPI-driven, but with decaying emissions. Last, NYM's monthly reward emissions paid so far are also lower than the planned (maximum) rewards of up to 2% of the rewards pool (0.5% of total supply per month).

More information is available in this repo that also contains the paper with further details on the published report and caveats. Besides the handling of delegation rewards, here is another example of those caveats: below chart with rewards per-node has all nodes for NYM (incl. not active ones) whilst for Hopr we estimated the number of nodes for the first months as we couldn't get them from the dashboard or the queries (needless to say - happy if someone can provide the exact numbers) - with this in mind, the rewards per node on a dollar basis seem to be another similarity between NYM and Hopr:



We hope this information yields some insightful information for the Hopr community and are open to your feedback. What would be some additional data you would want to see / topics to dive into?