This post is inspired by @evan's commentary about fundamental issues in proof of stake, and a few years of working with various liquid staking teams.

It should be viewed as a problem statement, rather than a proposed solution

Staking is priced incorrectly

Most likely this wouldn't be a problem at all, if it weren't for liquid staking protocols and the permissionless nature of public blockchains, which I don't want to change, and deeply flubbed in my earlier post on liquid staking.

Defending Against LST Monopolies [Research

](/c/research/5)

So I just got off a call discussing this. I think Celestia should be her own liquid staking monopoly To me, this proposal seems quite complex, and to @evan's credit, he understands deeply that it doesn't solve the fundamental underlying problem, "actually fix pos". I tend to agree. Celestia is a particular joy because Of all of the work that has gone into addressing base layer problems. I'm not entirely sure that this proposal doesn't actually create additional problems, there are two pieces…

One of the really nice things about a public blockchain is that at least on good public blockchains, every account is equal to every other account, except in terms of its balance. There are no special privileges, and there is no decrease in privileges.

However, in the real world today it's very clear that liquid stakers are afforded special privileges, and that the liquid staking protocol fee does not offset the benefit of these special privileges.

Liquid staking protocols allow users to freely move their staked assets. Immobility increases risk for stakers, because in the event that there is a serious problem, either technical or economic, the liquid stakers will be able to leave, whereas traditional stakers will be unable to leave.

It's very clear to me, and it has been very clear to me for some time, that traditional stakers provide a much greater benefit to the chain itself than liquid stakers. The economic immobility of their tokens provides greater economic stability to the chain. They don't have the opportunity or option to dodge slashes, and their holdings are very clear on the layer one itself.

Due to the fact that they can leave so easily, they don't really need to care about governance. If a governance vote screws up a chain, they can just leave. Regular stakers do not have this luxury. If a governance vote screws up a chain, they may or may not be able to leave, depending on the difference between the voting period and The unbonding time.

I have participated in numerous conversations about protecting liquid stakers from slashes. I believe that it is certainly possible to create and insurance mechanism that covers against more or less any possible slash because uptime slashes are small and relatively rare, and equivocation slashes are relatively rare and typically too small.

Ideally, we would want to ensure that no liquid staker benefited from the portion of staking rewards that's considered to be because of immobility. Personally I estimate that to be somewhere between 60 and 80%. In my earlier post I went with the more conservative 60%, however slashes are genuinely very rare. So the majority of downside is not the risk at slashing, it's the immobility.

Additionally, I am unsure that downtime slashes are even helpful.

Osmosis has been functioning for years now without downtime slashes, and my opinion is that the signed block window should actually be reduced on osmosis, because there is no economic penalty, except for an interruption in the stream of staking rewards, and the real reason for downtime slashes in the first place is that it doesn't make sense to have a validator who is not signing in the validator set. It would be good to maybe just view jailing as "temporary removal from consensus". So what we can see is that downtime slashes actually become a centralizing force. On chains that do have downtime slashes, validators are incentivized to be in or directly adjacent to The single most popular data center, which on most Cosmos chains is hetzner.