Recall that the possible leader selection schemes for roll-up sequencers are:

1. Central Sequencer
2. Stake-based round robin
3. Stake-based fork-choice rule
4. Non-stake-based fork-choice rule

Let us examine the censorship / MEV scenarios for baselayer validators:

Central Sequencer

If a baselayer validator is losing money on a roll-up, he can create a liveness failure for that roll-up and delay his losses. The liveness failure will last as long as the censoring validators are controlling block production on Celestia. Eventually the roll-up will resume and the liquidations or trades will be executed. Theoretically the entire Celestia network could hold the sequencer for ransom in an extreme case.

Stake-Based Round Robin

This depends on how the round robin recovers from failures. Kinks need to be worked out here. (I'll make another thread on this topic)

Stake-based Fork-choice Rule

Recall that stake-based fork-choice rules, such as a stake-weighted VRF for permissionless roll-up block production implies that valid blocks for a given Celestia slot will always be produced. This means that Celestia validators have the ability to pick-and-choose the most-profitable roll-up block for themselves to win. They can also monopolize block production by staking a small amount and continuously dominating the fork-choice rule by censoring other proposers. There will never be liveness failures, but there could be unfair sequencing, which may be inevitable regardless.

Non-stake-based fork-choice rule

Gas-rule is an example of this leader selection scheme. There exists an incentive to front-run these roll-up blocks, and any Celestia validator has the ability to produce blocks for the roll-up. Censorship scenario is similar to the stake-based fork-choice rule