One place to start is this medium article: Numerai's Master Plan. When Numerai launched in December 2015... | by Richard Craib | Numerai | Medium

Next: Building The Last Hedge Fund — Introducing Numerai Signals | by Richard Craib | Numerai | Medium

As for the classic tournament, yes the payout factor will keep going down as more and more NMR keep being staked. As how that relates to the "tokenomics", there was an original stake amount that was placed on by Numerai as a pool to pay data scientists. This pool needs to last, hence, the payout factor. As with anything, if this pool were to decline too fast than the tournament would not last. For this tournament, it is really meant to last though the end of the 2020s. As for what happens when the pool runs out offically no one really knows but if Numerai would like to keep gathering their data than really the only option would be to buy NMR on the open market and create another pool.

Signals has a separate pool. See article above

I think you sort of answered your own question in the last part as it relates to future token value. Finite tokens, burns, no more mints, increasing demand, possible large open market purchases in the future. When you think supply and demand, what happens when these factors are in play