Regarding the assumption on the first bullet, I don't think it is 0% or 100% probability the hedge fund generates profits. It would depend on their market excess risk adjusted return which affects AUM and subsequent profit like you have in the sheet. So just something to be careful of.

In the Excel sheet, it may be helpful to have a parameter to vary the % amount the hedge fund would contribute to buying back NMR rather than assuming that the hedge fund and its owners will take no profits. But something interesting here that I just realized from this sheet is that there is a risk that the price of NMR increases to a point where the hedge fund cannot buy back the coins at a reasonable price. They actually would have incentive to keep the price somewhat depressed. I wonder if an equilibrium can be found here.

You can also probably make more of a range with very conservative and very optimistic parameters and have them side by side. The given sheet seems pretty optimistic.

- $3B AUM - optimistic and assumes this strategy and operations with current AUM of about $100M (I am not sure?) will still work at $3B AUM
- 12% annual return - seems reasonable in the case where the hedge fund succeeds. After taking fees, it's about 8% annual return which is about what the market is for break even in the long run
- 1% management fee - I think this is conservative and can probably increase this. For different funds, just take some fund weighted average for this if doing it roughly all in
- 25% performance fee - maybe optimistic given the high-water mark. It's unclear to me how it will all workout if the performance is ever down and there will be periods of much less reduced income, but perhaps reasonable enough in the long run. For each chunk of AUM, with the given performance, 25% comes from a constant 1% management fee and 75% from the performance fee
- Cost of running the fund - currently approximately 1.5x cost increase for 30x AUM increase. I don't know if that's reasonable, but you can probably log scale it somehow to AUM
- NMR distributed per year - this actually looks reasonable to project future NMR distributions based on today due to the effect of the payout factor assuming no change in modeling CORR/TC and payout multiples
- backing out total staked NMR from the NMR distribution and expected return seems creative

I tried to put something together with these thoughts, but couldn't really make much more progress. This seems very interesting though and promising.

At the current NMR price of $15, this framework will need $350M AUM and $7M costs and 100% profit for buyback for the price. Or about $500M AUM and $7M costs with 50% of profits for NMR buyback.