Title: How much of your account should you have in GME? Using the Kelly Criterion to size your GME position.
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This is not financial advice. This is not financial advice. This is not financial advice.

This is just an entertaining illustration of an important principle in portfollio management.

Portfolio management is about how you should allocate your trading/investing account to best achieve your ends. [Markowitz and friends](https://www.investopedia.com/terms/m/modernportfoliotheory.asp) have dominated portfolio management, but [Kelly](https://www.investopedia.com/articles/trading/04/091504.asp) is a sort of black sheep that all the experts say is super important, but doesn't get nearly the respect that modern portfolio theory gets. I love the fact that Kelly uses [information theory](https://nickyoder.com/kelly-criterion/) with his buddy Claude Shannon to figure out the Kelly Criterion.) However, if your ends are to make the most money, then it can be proven mathematically that following Kelly is the right way to go (yes, the proof depends on certain assumptions, like all proofs). So what does Kelly tell us for investing in GME?

The Kelly Criterion (sometimes called the Kelly rule or Kelly ratio) is the following:

Kelly = Probability of winning - ((1 - Probability of winning) / Reward over Risk ratio)

Note that there are many variations of this equation, and I've seen plenty of mistakes online.

Kelly is the % of your account that you should wager on this security (here the security is investing in GME *stock*). If Kelly is negative, then that means you should take the other side.

Probability of winning is estimated in the linked article empirically based on past results, but if we can estimate the probability that the security in question will payoff, we can insert that estimate. For things like moass, there are no past results, so we have to estimate this directly.

Reward over Risk ratio is the total payoff if you win divided by the total loss if you lose. This can be estimated by looking at your total winnings and total losses, but it can also be estimated in other ways (for example, for winning the lottery, this would probably be zero for most people, and we all know you cannot divide by zero, so you'd want to estimate this by the price of the lottery ticket and the amount of the big prize).

For GME, we can say that moass is the event and I'm going to say that, in particular, the event is *moass before 2022*. I'll say that the probability of winning is 90% -- here I'm just pulling an number out of my ass based on all the DD I've seen over the past many moons. For the reward over risk ratio, I will use the current floor from the SS subreddit posts. This number was 48,000,000$ a few days ago. And I'll use the price of a single share of GME, which as of Friday is 190$. So that makes reward over risk equal to about 252631. And away we go:

Kelly_GME = .90 - ((1-.90) / 252631))

= .8999 or about 90%

That is, the **Kelly Criterion** says you should put **90%** of your account into **GME shares**, given these inputs (moass before 2022, 90% probability, floor price, current price).

I ought to say again that I'm not telling you to do anything. Kelly, on the other hand, might be telling you something.

Stay strong.

Buy, hodl, and transfer.