INVEST WITH HENRY

Options Delta

Delta: Directional Exposure & Probability of Expiring ITM (in the money)

Delta is the Greek that helps us get a better understanding of our directional exposure.

It explains how much exposure to a stock we have. For example, a 50 delta on an option means we have 50 shares worth of equivalent exposure.

It tracks share equivalency. When you are long (meaning you buy) calls you are positive delta. When you are short (selling calls) you are negative delta. That's what I mean by hedging your portfolio and making it safer. When you sell calls you are selling delta. Or in other words reducing your exposure!

If a long call option has a 0.5 delta, and the underlying increases $1.00, that option should see an increase in price of $0.50, all else equal (some other factors impact an option's price, but we assume those aren't in play for this example).

If a long put option has a 0.50 delta, and the underlying increases $1.00, that option should see a decrease in price of $0.50, all else equal. If we saw the underlying decrease by $1.00 instead, the put would gain $0.50 in value, all else equal.

How come? Remember puts bet on stocks going down. Therefore, a put increases in delta when the stock falls. Interest huh? You can make money if you think a stock is going to fall.

Let's discuss more on using delta to our advantage. Delta can add, subtract or neutralize a stock position. Each share of stock is 1 delta, so 100 shares of stock would equal 100 positive deltas. Each $1.00 the underlying moves up would result in a gain of $100. Some investors may want to adjust this exposure at certain times during the share ownership, and we can use options to do just that!

Let's say you own 100 shares of Tesla right before earnings. You are concerned Elon Musk may do or say something silly to make the stock fall. Rather then sell the shares and realize a bunch of capital gains you have to pay taxes for, instead take some money off the table by selling some delta. How would you do that? Well by selling some calls. I'll explain further in module 5! For now, just know that you can subtract and add deltas (adding and subtracting risk) using options!

Next, we have learned that delta is also the probability an option will expire in the money. That is exactly why an ATM (at-the-money) option is always 50 delta! Why? Because it is equally likely to rise as it is to fall based on the options pricing formula. A strike far from the money has a low delta and a strike in the money has a high delta. I'll have a quiz for you at the end of this module.