Primer on option income generation by selling puts and calls to generate cash flow
November 17, 2022
*****Option trading is extremely RISKY. Do not enter option trades until you are sure that you know what you are doing.****

Trading options is the second most expensive education ever.
*****THIS IS NOT A RECOMMENDATION TO TRADE OPTIONS*****
Rather this is information presented for education proposes ONLY
You can only trade options once your account has been approved, and each account needs to be approved separately and there are 4 levles of option approval
****It is highly suggested that before you trade options in your account (even to generate income) you "paper trade" them..

Options: are a financial contract that is time sensitive and a leveraged way you can extenuate your gains, and losses.

1. These are contracts for a limited time period. Usually 30, 6090 days, though you can invest in ones that have longer time period
2. They are a contract that allows you to buy or sell a stock at a agreed upon price within that time frame
3. Because of these rules the contract has "time Premium" as part ( or all of its price)
4. Options are created by exchanges not by the underlying company
5. Most options are for 100 shares. So if you buy 1 call ora put $@ \$ 5.00$ per call, it is an investment of \$500.00 $100 \times \$ 5$

As an example; January $3^{\text {st }}$, there is a stock trading at 100 that you think is going higher. The February option prices ( these options expire Feb Feb 17th 2023, or in 46 calendar day) are as follows

1. Jan 100 call strike price is trading at $\$ 10.00$
2. Jan 105 call strike price is trading at $\$ 6.00$
3. Jan 110 call stock price is trading at $\$ 3.50$
4. Jan 100 put strike price is trading at $\$ 10.00$
5. Jan 95 put strike price is trading at $\$ 6.00$
6. Jan 90 put strike price is trading at $\$ 3.50$
a. If you buy the Jan 100 put or call $@ \$ 10.00$, and the stock doesn't move from $\$ 100$ you would loss $100 \%$ of your investment (you could sell it between now and expiration and not loss 100\%)
a. You paid $\$ 10.00$ in time premium, and each day we get closer to Feb 17, you'd loss some of that time premium. As straight line example is $\$ 10.00 / 48$ days, you loss 21 cents a day
i. Time premium doesn't disappear in such a straight line and is also impacted by price movement of the stock
b. You buy the jan 100 CALL $@ \$ 10.00$ and the stock is trading at $\$ 120.00$ on Feb $17^{\text {th }}$. Then you option would be worth $\$ 20.00$, and you would have doubled your investment. While if you bought the stock at $\$ 100$ and it was now $\$ 120.00$ you'd have made $20 \%$ (but you also wouldn't have to take action, you could retain the position)
c. You buy the Jan 100 CALL @ $\$ 10.00$ and on Feb17th the stock is valued at $\$ 108.00$. Your option is only worth $\$ 8.00$, you have lost $20 \%$ ever though the stock went up.
d. If you bought any of the PUTs and the stock went up you'd loss $100 \%$
e. If you buy the Feb 100 PUT @ $\$ 10.00$ and the stock is trading at $\$ 80$, then your option is worth $\$ 20.00$ and you have doubled your money
f. If you buy the Feb 100 put @ $\$ 10.00$ and the stock is $\$ 92.00$ on Feb $17^{\text {th }}$ then your option is worth $\$ 8.00$ and you have lost $20 \%$, ever though the stock went down

## g. GENERATE CASH FLOW; selling covered calls

a. You buy 100 shares of the stock today @ $\$ 100$, and you sell the Feb 110 call for $\$ 3.50$
i. Essentially you are out of pocket $\$ 9650.00$ : $\$ 100 \mathrm{X} 100=\$ 10,000$ minus the $\$ 3.50 \times 100$. or $\$ 350.00$ you received
ii. You have given out the right to any appreciation above $\$ 110.00$ for the next 48 days
b. On Feb 17 th the stock is still at $\$ 100$ : you retain the stock; you have $\$ 350.00$ in cash in your account. And you are free to do whatever you want
c. Stock is $\$ 108.00$ on Feb $17^{\text {th }}$ : since no one wants to pay you for your contract to buy at $\$ 100$ when they can buy in the market at $\$ 108$, you retain your stock and the $\$ 350$, you have made $\$ 1150.00$ ( $\$ 800$ in stock appreciation and $\$ 350$ premium collected ) on a $\$ 9650$ investment in 48 days... 11.9\%, which annualizes to $71 \%$ (assuming you can do this 6 times a year)
d. Stock is $\$ 120.00$ on Feb $17^{\text {th }}$ You will sell the stock at $\$ 110.00$ (price you contracted for.)
i. Your return will be $\$ 1350$ on $\$ 9650$ investment in 48 days
ii. If this isn't an Ira you will be taxed at short term cap gains rates
iii. And you have NOT participated in $\$ 10$ per share or $\$ 1000$ in stock appreciation.

## h. GENERATE CASH FLOW: selling puts

a. You like this $\$ 100$ stock but think it or the market will go lower, instead of buying and selling calls, you sell puts
b. By selling a put you are obligating yourself to buy the stock at the strike price of the contract, during the time frame of the contract ( you can close your contract position buy buying it and remove your obligation)
c. As an example, you sell the Feb 90 PUT for $\$ 3.50$. you put $\$ 350.00(\$ 3.50$ per X 100 ) into your account, but you are obligated to buy the stock @ 90.00. for anyone to want to make you buy the stock at $\$ 90.00$ it would need to be trading below that price.
i. So if on Feb $17^{\text {th }}$ the stock is $\$ 100$, you don't have to buy the stock and you keep the \$350.00
ii. If the stock is at $\$ 80.00$ on Feb $17^{\text {th }}$, you will be forced to buy the stock at $\$ 90.00$, you keep the $\$ 350$, so essentially you will have paid $\$ 86.50$ for a stock trading at $\$ 80.00$ (times 100 or $\$ 8650.00$ )
iii. If the stock is trading at $\$ 95.00$ on feb $17^{\text {th }}$ you keep the $\$ 3.50$
d. Say the stock is trading at $\$ 91.00$ on Feb $15^{\text {th }}$, two days before the contract expires. Most of the time premium will have been sucked out of the price, and the contract might be trading at 25 cent per contract. If you were worried the stock might fall below you could buy the contract for 25 cents, and net $\$ 3.25$ per share, $\$ 325.00$ total
i. For puts think that you have invested $\$ 9,000.00$ ( if you are selling the 90 strike put) and your return is $\$ 350.00$ if you don't exercise. So you have made $3.88 \%$ in 48 days. If you could do that 5 times year, you'd make about 19\% free cash flow.
j. For calls the return is different cause you are buying the stock at current price (if you didn't already own it), making $\$ 350$ per 100 shares, but you are also still entitled to the dividend, if there is one, so that would add to your cash flow calculation.

## Using option prices to gauge market expectations on price movement

In this example, the stock is at $\$ 100$, and the $\$ 10.00$ out of the money calls (the 110 strike price) and the $\$ 10.00$ out of the money put (the $\$ 90.00$ strike price) are both trading at $\$ 3.50 \ldots$ so this stock is "in balance" and the market doesn't have an opinion of which way it will move in the next 48 days.

## Examples:

1. Jan $1^{\text {st }} \mathrm{MRNA}$ is priced at 180.00 (179.62).
a. Feb 180 calls are 15.55 , Feb 180 puts are 15.47 , this is essentially in balance
2. Jan $1^{\text {st }}$ AAPL is priced at 130 . (129.93)
a. Feb 130 calls are 7.61 , Feb 130 puts are 7.13 , slight bullish bias
b. Please note the premium amount is way higher on MRNA (8.5\%) vs AAPL (5.8\%)
i. This tells us that MRNA is expected to be much more volatile
3. Jan $1^{\text {st }} \mathrm{CAR}$ (Avis) is priced at 164 (163.93)
a. Feb 165 Call is 13.12 , Feb 165 put is 24.00 (call is one dollar out of the money, put is one dollar in the money is premium is 14.12/ 23.00.. very bearish
i. Note these don't trade much so pricing might be stale
4. $* * * * * *$

Market isn't always right

