

## How Selling Options May Be Safer Than Buying Stock

I have always believed that risk is a function of education. The financial media may have you convinced that options are very risky and you may even believe they are weapons of mass destruction. But what if I told you that if you use options the right way (not to speculate) that you could actually take less risk than buying stock outright? And in doing so you would increase your probability of profit, reduce your cost basis, and give yourself more than one way to win (profit). Oh, and you will never be afraid of volatility again, you will actually hope and pray for it.

There are two option strategies that will allow you to buy Stocks and ETF's below current market prices. The Covered Call and the Short Put are option strategies that allow you to get long at discounted prices every trading day of the year. The discount prices get deeper during corrections when fear drives volatility through the roof, which inflates option premiums.

Before we get into how options can be safer and more advantageous than buying stock outright, let's get a few definitions out of the way.

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### Basic Definitions

**Option** – An option is a derivative, which means it's value is based on something other than itself (in this case the underlying asset/stock). Make a note that every option for stocks represents 100 shares.

**Call Option** – As a buyer, a call option gives you the right, but not the obligation to buy a stock at a certain price by a certain date in the future. You pay a premium for this right. As a seller, a call option gives you the obligation to sell a stock at a certain price by a certain date in the future, should the buyer execute his/her right. You collect a premium for this obligation.

**Put Option** – As a buyer, a put option gives you the right, but not the obligation to sell a stock at a certain price by a certain date in the future. You pay a premium for this right. As a seller, a put option gives you the obligation to buy a stock at a certain price by a certain date in the future, should the buyer execute his/her right. You collect a premium for this obligation.

**Strike Price** – The price at which a put or call option can be exercised.

**Expiry** – The date the option expires.

**In The Money (ITM)** – A call is said to be ITM when the underlying's current market price exceeds the strike price. A put is said to be ITM when the underlying's current market price is below the strike price.

**Out of The Money (OTM)** – A call is said to be OTM when the underlying's current market price is below the strike price. A put is said to be OTM when the underlying's current market price is above the strike price.

**At the Money (ATM)** – A call (and put) is said to be ATM when the current market price is equal to the strike price.

**Intrinsic Value** – The intrinsic value is the difference between the underlying's price and the strike price. **Only options that are ITM have intrinsic value.**

*Call Intrinsic Value* = Underlying Current Price – Strike Price

*Put Intrinsic Value* = Strike Price – Underlying Current Price

**Time Value (or Extrinsic Value)** – The value in excess of the intrinsic value.

*Time Value* = Option Premium – Intrinsic Value

**Margin of Safety** – The amount a stock can fall from its current market price before you start losing money.

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### Comparing Two Ways to Get Long Stock Selling Options vs. Pure Long Stock

For this post, let's assume that we are die hard index investors, and in particular we love the SPY ETF (which represents the S&P 500 index). This will all still apply to all underlying's that have options, but I want to take you through specific examples of how this works (instead of something like Stock XYZ).

When it comes to getting long an underlying, I want to compare 3 choices, all of which have their own tradeoffs. In these examples, we are going to assume that you are investing in a cash only account and not a margin account. This saves us from a whole other conversation around capital efficiency. All examples will be based on a 1 YR holding period. We will also ignore commissions, for simplicity. Lastly, we will assume where applicable, that a full years' worth of dividends is received.

Below is a screenshot of the SPY and the option prices used in this post for your reference (from my Think or Swim Platform by TD Ameritrade):

SPY														
SPDR TR S&P 500 ETF TR														
189.70 -2.43 -1.26% B: 189.83 A: 189.84 ETB														
Underlying														
Last X	Net Chng	Bid X	Ask X	Size	Volume	Open	High	Low						
189.70 Q	-2.43	189.83 Q	189.84 P	16 x 10	35,285,526	189.77	190.10	189.12						
Yield	PE	EPS	Div	Div.Freq	Ex Div.Date	52High	52Low	Shares	Beta					
2.18%	N/A	0	1.033	Q	9/18/15	213.78	181.92	877,632,000	.9952					
Option Chain														
Exp. types: Regular, Weeklys, Quarterlys, Mini Spread: Single Layout: Return on Risk, Probability OTM, Probab...														
CALLS														
ROR	Prob.OTM	Prob.Touch	Bid X	Ask X	Exp	Strike	Bid X	Ask X	ROR	Prob.OTM	Prob.Touch			
Strikes: ALL														
PUTS														
SEP 16 (350) 100 24.41% (±36.93)														
SEP5 16 (364) 100 (Quarterlys) 21.57% (±33.158)														
N/A	19.54%	35.16%	56.15 M	56.55 M	SEP5 16	135	3.29 C	3.37 W	2.53%	82.43%	31.77%			
N/A	21.54%	38.72%	51.62 A	51.99 A	SEP5 16	140	3.88 M	3.96 I	2.88%	80.10%	35.90%			
N/A	23.84%	42.79%	47.16 B	47.53 B	SEP5 16	145	4.56 M	4.65 W	3.28%	77.52%	40.47%			
N/A	26.49%	47.45%	42.82 W	43.19 W	SEP5 16	150	5.34 N	5.43 W	3.72%	74.70%	45.44%			
N/A	29.41%	52.55%	38.61 A	38.93 A	SEP5 16	155	6.22 A	6.32 W	4.22%	71.62%	50.82%			
N/A	32.65%	58.17%	34.53 X	34.83 X	SEP5 16	160	7.24 C	7.34 W	4.77%	68.25%	56.68%			
N/A	36.18%	64.24%	30.60 C	30.88 A	SEP5 16	165	8.39 C	8.50 W	5.39%	64.59%	62.98%			
N/A	40.03%	70.79%	26.86 M	27.11 M	SEP5 16	170	9.72 Q	9.84 W	6.10%	60.62%	69.76%			
N/A	44.13%	77.70%	23.28 X	23.51 X	SEP5 16	175	11.20 A	11.33 X	6.88%	56.38%	76.90%			
N/A	48.50%	84.97%	19.92 M	20.10 X	SEP5 16	180	12.89 M	13.02 Q	7.76%	51.85%	84.43%			
N/A	53.12%	92.52%	16.76 W	16.93 A	SEP5 16	185	14.79 C	14.93 Q	8.73%	47.06%	92.26%			
N/A	57.96%	99.57%	13.85 W	14.02 W	SEP5 16	190	16.92 C	17.07 C	9.82%	42.04%	99.55%			
N/A	62.97%	86.78%	11.19 W	11.33 Q	SEP5 16	195	19.27 X	19.47 X	11.03%	36.84%	86.31%			
N/A	68.07%	74.09%	8.82 W	8.96 W	SEP5 16	200	21.96 Q	22.14 M	12.39%	31.55%	73.18%			
N/A	73.16%	61.69%	6.74 X	6.88 W	SEP5 16	205	24.87 M	25.12 A	13.89%	26.23%	60.27%			
N/A	78.14%	49.81%	4.98 X	5.09 N	SEP5 16	210	28.16 X	28.39 X	15.56%	21.08%	48.01%			
N/A	82.82%	38.83%	3.53 W	3.64 W	SEP5 16	215	31.73 M	31.96 X	17.39%	16.18%	36.53%			
N/A	87.06%	29.02%	2.39 X	2.49 Q	SEP5 16	220	35.52 M	35.87 X	19.37%	11.63%	26.06%			
N/A	90.67%	20.78%	1.55 X	1.64 W	SEP5 16	225	39.73 M	40.03 X	21.54%	7.83%	17.42%			
N/A	93.63%	14.09%	.95 C	1.02 I	SEP5 16	230	44.00 X	44.44 W	23.80%	4.27%	9.43%			
N/A	95.82%	9.19%	.56 C	.62 C	SEP5 16	235	48.62 M	49.13 M	26.26%	1.95%	4.28%			
N/A	97.41%	5.67%	.31 X	.36 X	SEP5 16	240	52.80 Z	54.36 Z	28.74%	0.00%	0.00%			
N/A	98.48%	3.30%	.15 X	.21 X	SEP5 16	245	57.60 Z	59.19 Z	31.29%	0.00%	0.00%			

### Example #1 – Buy 100 shares of SPY @ \$189.70 on 10/2/15 (current dividend yield is 2.18%)

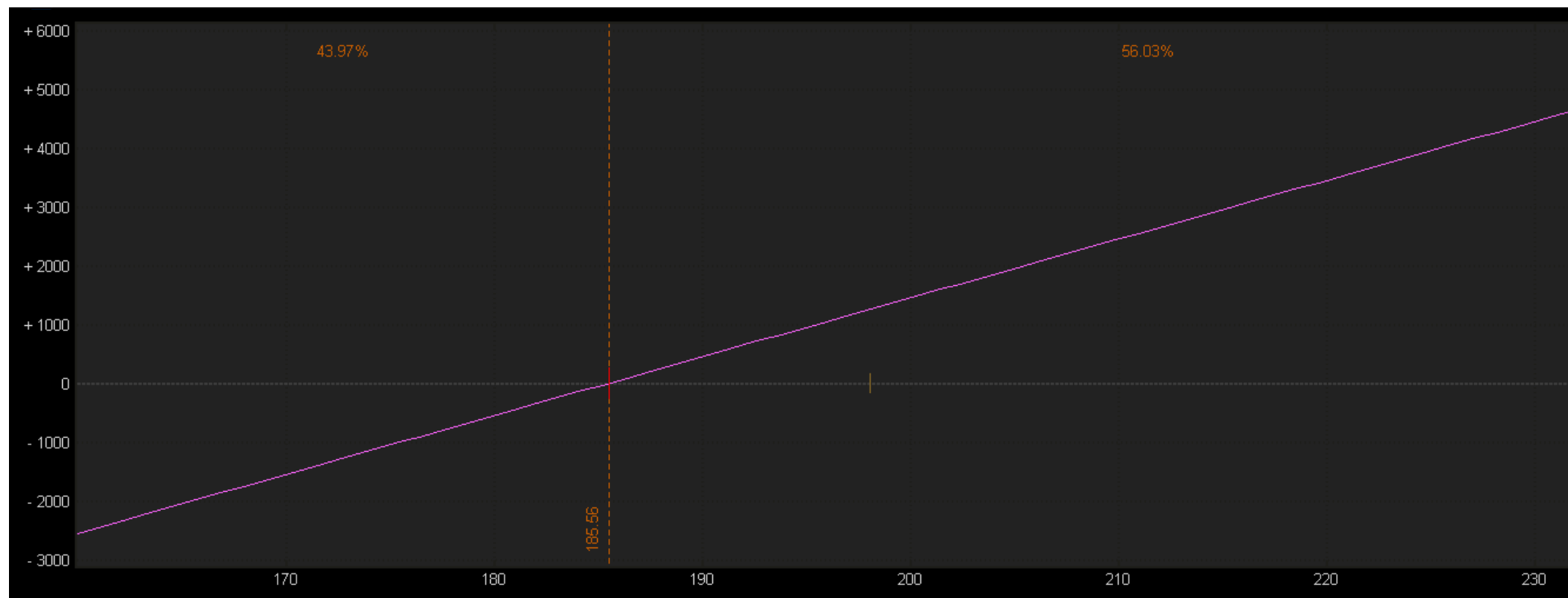
This is the example that I believe most people can relate with and understand intuitively. It's been ingrained in us that when you invest, you need to buy something, and in this case it is 100 shares of an index ETF. In order to buy 100 shares in a cash account, this will require \$18,970. With the SPY ETF, you have minimal downside protection, but unlimited upside.

Below you will find the graphical representation of the risk/reward for investing in 100 shares of stock. Notice that the 1 year breakeven is at \$185.56, represented by the orange line in the graphic. This is calculated by taking the purchase price of \$189.70 minus the dividend of \$4.14 per share. This also represents your theoretical risk per share, I say theoretical because it is highly unlikely that an index fund is going to go bust and

be worth ZERO. If this were to happen, it would imply that all 500 companies in the SPY went bankrupt. Your investment going to ZERO would likely be the last of your concerns if this were to happen, as the world would have likely imploded.

The purple line represents the risk/reward continuum, and you will notice that the reward is upward sloping. Your reward is unlimited to the upside, as it can theoretically go up infinitely.

The only downside protection you have is the dividend you receive while you own the stock, which in this example is 2.18%. We will call this your **margin of safety**, as this is how much value the stock can lose over a 1 year period, before you start losing any money.



**Capital Required** = \$18,970 (the amount needed to initiate the position)

**Potential Reward** = theoretically unlimited upside (average return of 8% would be \$1,517)

**Downside Protection** = the Dividend @ 2.18% or approximately \$4.14 (\$414)

**1 YR Breakeven** = \$185.56 (Purchase Price 189.70 – Dividend 4.14)

**Theoretical Risk** = \$18,556 (assuming you collected the full dividend)

**Margin of Safety** = 2.18% (185.56 divided by 189.70 minus 1)

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**Example #2 – Buy 1 September 2016 \$190 Strike Covered Call for \$175.77 (buy 100 shares @ \$189.70, sell 1 call option @\$13.93), with 364 days to expiry**

I chose to follow with the covered call because it still involves the purchase of stock, while also selling a call. It is a “Covered” call because you already own the stock. When selling a call against your long stock position, I typically like to sell the ATM call or 1-2 strikes OTM (i.e. strikes above or at the current market price). These calls are going to have the most extrinsic or time value. As a seller of the call you promise to sell the stock at the strike price anytime between the time of the sale and the options expiration date.

In this example, you are selling the \$190 call for a premium of \$13.93, which obligates you to sell the shares at \$190 to the person who bought the call if they decide to execute their option (giving you an effective sales price of \$203.93). Either way you get to keep the \$13.93 (or \$1,393). Keep in mind that it wouldn't make any economic sense for the call buyer to execute his option unless the SPY was trading at \$203.93 (his breakeven) or higher (he doesn't start making money until the SPY exceeds \$203.93).

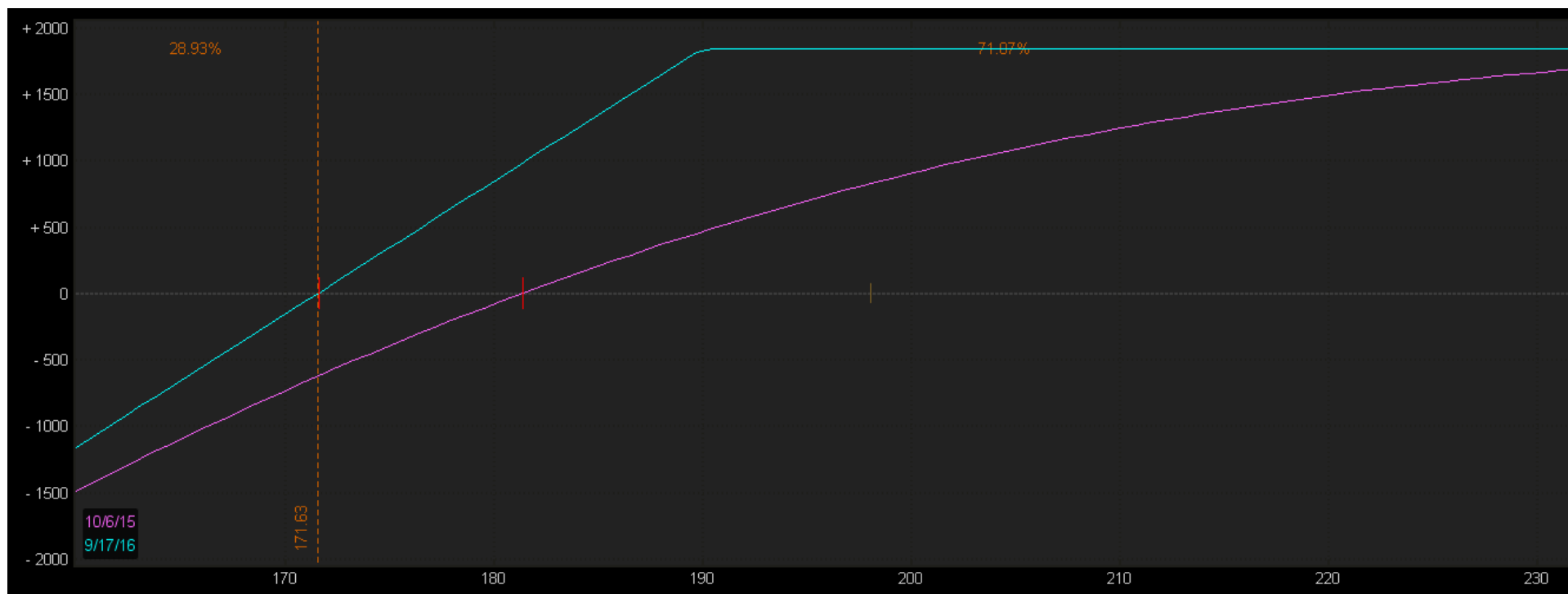
The premium you collect from selling the call now gives you a **new cost basis** of \$175.77 in the event that you don't end up getting exercised to sell your shares (\$189.70 minus \$13.93).

Of course the trade-off for the reduced cost basis is you capping your upside.

Let's look at 4 ways this could play out:

- 1 – The buyer of the call exercises his option to buy the stock from you the same day he buys the option (unlikely, but hang in there). In this case you don't collect any dividends and you make an instant **8.1% return** (\$190 sales price divided by cost basis of \$175.77 minus 1).
- 2 – The buyer waits until the day the option expires to exercise his right to buy the stock from you. In this case you collect \$4.14/share in dividends, which reduces your cost basis from \$175.77 to \$171.63. You have now earned a **10.7% return** (190 sales price divided by cost basis of \$171.63 minus 1)
- 3 – The third scenario is that the option expires worthless, you keep the premium and your stock. Your new cost basis is \$171.63 and you can do it all over again.

4 – You also have the option to buy the call back at any time and keep the spread.



**Capital Required** = \$17,577 (the amount needed to initiate the position)

**Max Potential Reward** = 10.7% or \$1,837 [(\$1,393 premium + \$414 dividend + \$30 appreciation) divided by risk \$17,163]

**Downside Protection** = the \$18.07/share [\$1,393 premium collected from selling the call, plus the \$414 dividend (or \$1,807)].

**1 YR Breakeven** = \$171.63 (Purchase Price 189.70 – premium 13.93 – dividend 4.14)

**Theoretical Risk** = \$17,163 (assumes you collected the full dividend)

**Margin of Safety** = 9.5% (171.63 divided by 189.70 minus 1)

Let's look at an analogy of how selling a Call against stock would work with selling a house.

You live in the Bay Area and the market is on fire. An identical house to yours sold for \$1,000,000 3 months ago in your neighborhood, it was listed at \$900,000 and through a bidding war went for 11% over asking. You met with your real estate agent who wants to list your house at \$1,000,000 to start and reminds you how hot the market is, and that it will likely sell for a premium. With this, you have already set a goal in your head to sell for \$1,080,000.

Just as you finish placing a "For Sale" sign out in front of your house a stranger passing buy ask to confirm that you're the owner and that the house is indeed for sale.

After you confirm, the stranger (we will call him James), explains to you that he is in the market and would like to make you an offer. He offers to pay you \$20,000 up front if you are willing to hold the house for 30 days and sell it to him for \$1,080,000 when he returns from his travels around the world. No remember if you accept the deal that means that you are locking in a sales price of \$1,100,000 (the \$1,080,000 + \$20,000 fee for holding). Even if someone offers you \$1,150,000, you can't take it.

You agree to the offer James makes. He pays you \$20,000 on the spot and now 1 of 3 scenarios are to play out:

1. James returns from his trip and exercises his option to buy the house from you at \$1,080,000, you had to pass on an offer of \$1,120,000 to fulfill the agreement you made with James (leaving \$20,000 on the table).
2. James returns from his trip and decides not to execute his option, you keep the \$20,000, and sell it to the next best offer. Your next best offer is \$1,060,000 (for an effective sales price equal to \$1,080,000 after you add in the \$20,000 you get to keep).
3. After James decides to not execute you find out the next best offer is at asking of \$1,000,000, you decide not to accept and hold out for better prices. You just made an easy \$20,000.

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### Example #3 – Sell 1 September 2016 \$190 Strike Put for \$17 (or \$1,700), with 364 days to expiration

Our last example is that of selling a put. Take notice that the risk profile charts for a covered call and a short put are exactly the same shape. This is because they are synthetically the same strategy.

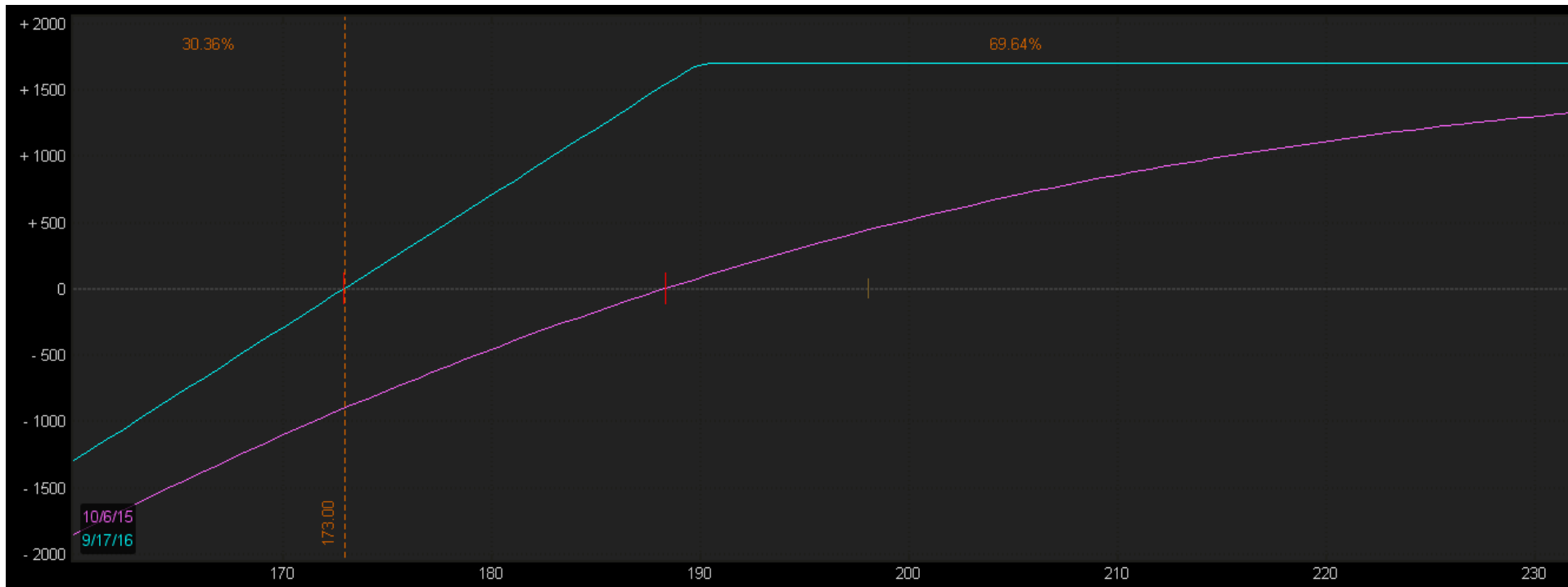
Like the covered call, I typically like to sell the ATM or 1-2 strikes OTM. In this case we are selling the ATM \$190 put for a \$17 premium or \$1,700. By selling this put we are obligating ourselves to buying the stock at \$190 if exercised. But after you take into consideration the premium collected, our effective long price is actually \$173. Again, it doesn't make economic sense for the put buyer to exercise his option if the stock is not trading at or below \$173/share.

Let's look at 3 ways this could play out:

1 –The buyer of the put exercises his option to sell the stock to you. You keep the premium and now own the stock with an effective cost basis of \$173/share. You are now free to turn this into a covered call (see above).

2 – The stock finishes somewhere between \$173 and \$190, you buy the put back for less than you sold it for and keep the difference. You make something between 0% and 9.8%.

3 – The option expires worthless, you keep the premium and you have no position left. You make a **9.8% return** (\$17 premium divided by effective cost basis of \$173 minus 1).



**Capital Required** = \$17,300 (the amount needed to initiate the position)

**Potential Reward** = 9.8% or \$1,700 (\$1,700 premium divided by risk \$17,300)

**Downside Protection** = the \$17/share premium collected from selling the put (or \$1,700).



**1 YR Breakeven** = \$173 (Strike Price 190 – premium 17)

**Theoretical Risk** = \$17,300

**Margin of Safety** = 8.8% (173 divided by 189.70 minus 1)

Let's look at an analogy of how selling put options would work with buying a home. (The example below was taken from a newsletter I am subscribed to called "The Palm Beach Letter.")

It's your dream home. But it's listed for \$500,000... \$100K more than you're willing to pay. The seller isn't interested in your offer.

So, you come up with a creative solution to keep yourself in the game...

You offer to buy the house for \$400,000.

But to sweeten the deal for the seller, you add this carrot: The seller can accept your \$400K bid at any time over the next year.

The seller likes this because it gives him time to try to find a buyer who'll pay more for his house. It also gives him reassurance he'll still get money from you if he can't find another buyer.

But in exchange for this new contingency offer, the seller must give you \$5,000. And you get to keep this \$5,000... whether or not you end up buying his house.

Now, if the seller agrees, one of two things can happen...

1. Sometime over the next year, he'll agree to sell you the property at your initial asking price of \$400K.

Maybe housing prices will fall dramatically... or he'll need to move quickly... or he just won't find a buyer willing to pay more.

In either case, you'll get the house for \$400,000. Plus, you'll get to keep the \$5,000 (an effective cost basis of \$395,000).

2. He'll never sell you the house. Maybe he'll find someone who'll pay his \$500,000 asking price, or he'll decide not to sell at all. Still, you'll get to keep the \$5,000.

So, while you didn't get the property you wanted, you'll generate an easy \$5,000 in income.

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## Volatility is Your Friend

Here is just a quick not on volatility.

When it comes to selling options, the higher the volatility the higher the premium you will be able to extract from the market place. More premium translates into an increased ***margin of safety***.

Here is a quick example to show you why volatility is your friend when selling options.

– On 8/18/2015 when the SPY was trading for \$209.98, the October-2015 \$200 strike PUT was \$2.00 (a put that was \$10 OTM) = **Effective long price of \$198**

– On 8/24/15 when the SPY was trading for \$189.55 the October-2015 \$179 strike PUT was \$6.38 (again \$10 OTM) = **Effective long price of \$172.62**

During large moves to the downside, fear increases, which in turns increases volatility as investors look to buy protection to decrease their losses (volatility and price have an inverse relationship).

In this real example, the SPY was almost \$20 lower, but because of the explosion in volatility (fear), you were able to get 3X the premium for a put that was still only \$10 OTM from the current market price.

I should point out that during this move the VIX went from 13.8 to a high of 53.3 and closed at 40.7.

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## Summary

If this is your first exposure to options, I hope that you will at least keep an open mind as to the possibility of the role they can play in your portfolio. For those that have been brain washed to believe that options are dangerous, I hope this gives a view of the other side of the coin. There is a difference in using options for speculation and using them to reduce risk (and thus cost basis).

Like anything in life, there are tradeoffs when selling options. In return for the premium you collect, you are agreeing to a defined upside reward, but you also are giving yourself more than one way to win. Think about the examples we went through above. In either case you make money if the SPY goes up in value, stays the same, or if it goes down until it reaches your breakeven point. That is a pretty good trade off if you ask me.

These are the two best strategies to always get long stock at below market prices. With options, every day is a sale in the market, the extreme discounts on big moves down in price (due to increased volatility).

*Are you starting to see options in a new light? Would you consider the short put or covered call in your portfolio? What other thoughts or questions do you have?*

-Dominic @ [Gen Y Finance Guy](#)