Report4

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Rank: 2nd, 10.35%, 103531.95$

Stocks and futures picking

First of all, we chose to begin with long position since it is the most simple and intuitive way for us as new traders. Viewing the recent highly drop of the US stock market, we thought that it was not the right time to do so.

We first took a look at the /ES future. As is shown in the first picture, the price of it was showing a rising trend and started fluctuating from September 20th. We kept tracking it and we thought that it seemed to be a bottom of the price (shown in the second picture) which is a good time for us to make our long position.

For the TSLA and AMD stock, we have more ways to get information to choose the right time make our long position.

As TSLA is the leader in new energy auto industry, we believe it has a bright future on auto market. Its current stock price may be a little higher than its suitable value, however, it deserves an overestimated value.

As AMD is one of the biggest manufactures and merchants of integrated circuits, it recently declared a new technology on their products. Addition to the expectation of shortage in Intel's supply on microchips, the market became quite optimistic about AMD, which rose its stock price up to 2 times just in two months. And then, after its short drop along with the index price, we held our long position on it, additionally according to a little technical analysis.

We have not yet completely set up our portfolio, neither do we have taken our hedge. We intend to hold short position on TSLA and AMD options, which will lock our assets value. We will continue to focus on the market, to figure out the appropriate compound and number of how much future contracts we should hold.

We noticed that, the volatility of /NQ price is close to stock prices of our holds, so we had two futures contracts on short position. Meanwhile, we let the assets value of our portfolio close to the value of futures contract.

Hedging and other trials, 11/2/2018 :

As referred above, we set up our portfolio with 500 shares of TSLA and 4000 shares of AMD. Then we calculated the number of futures contracts we needed to short on in order that we could make profit no matter the market went up and down. For the calculation of contracts number, we download the daily close prices of each during the past two months. In order to get rid of the influence of the quarter reports, we chose the date from 7/29 to 9/29. Then, we figured out the correlation between each stock return and Nasdaq Index futures return. Based on that, we could decide the number of contracts we should hold.

The trade price of TSLA was 262.15 per share. The trade price of AMD was 27.35 per share. The trade price of NQ was 7284.75.

We used the formula below to calculate the number of futures contracts:

$$\text{Number of futures} = \sum_{i=a,b,\dots} \beta_i \times \frac{V_i}{V_F}$$

However, things never go perfectly. We encountered a severe drop of 8% in AMD stocks on 27th, Oct, just 3 days before its scheduled report of the 3rd quarter. Thus, we unloaded all AMD shares and changed the assets into Intel's shares. As the result, it seemed we made a wise decision for that AMD's profit was under the market expectation and Intel's report was kind of pretty. So, we made a great deal of profit.

	Trade price	quantity	delta	value	Stand deviation of daily return	beta	Future number
TSLA	262.15	500	500	131,075	4.58524E-05	1.24	1.249
AMD	27.35	6000	6000	164,100	2.87E-05	0.77	0.863
/NQ	7284.75	-2	-40	-291,390	3.65714E-05	1	—

INTC	43.52	3500	3500	152,320	3.68986E-05	1.01	1.056

TSLA	
AMD	
NASDAQ Futures	
INTC	

Meanwhile, we also tried another two portfolios. One of them was that we held the long

position on AZN and short position on BMY simultaneously. Both these companies are medical and biological incorporations, and according to their highly similar trends in daily price, we held the same weight in their values. However, as the volatility of them were extremely large and seemed almost unpredictable, we unloaded them just after holding them a short time.

AZN	
BMY	
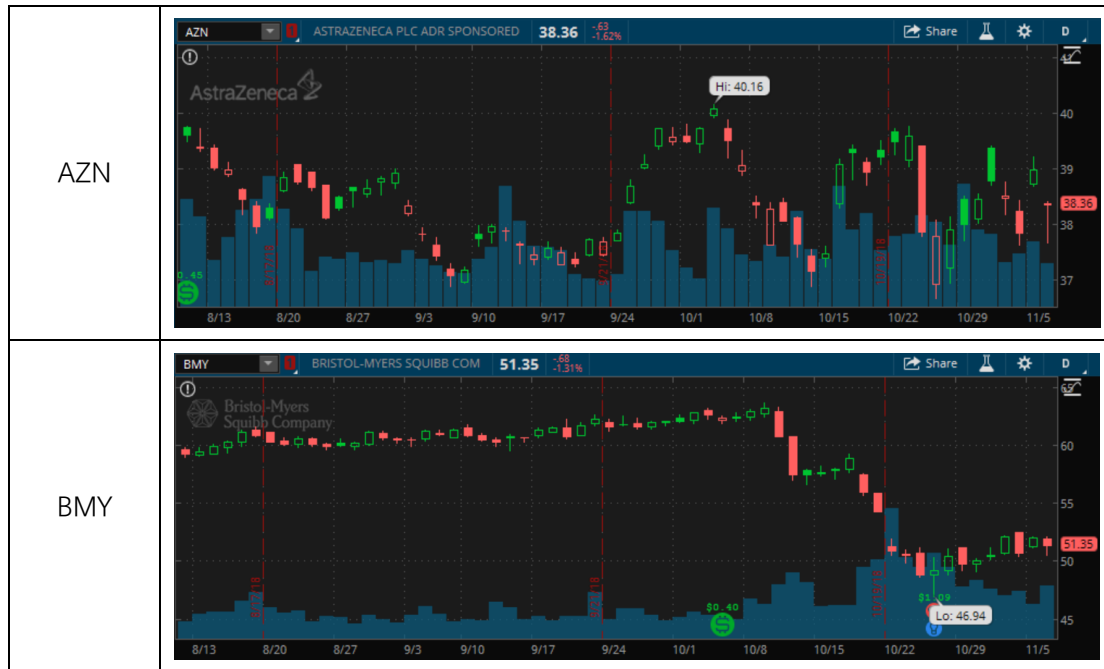
The other trial portfolio was that we bought REGN shares and its put options. And we will await its feedback. We will include the outcome of this portfolio in the next report.

New portfolios, 11/14/2018：

Although we set up the portfolio of REGN shares and its put options, we didn't quite run well with our assets. As we also bought in BLUE along with REGN, both of which are biological corporations. However, the BLUE has an extremely fluctuation which increase the volatility and uncertainty of the return of our assets.
We unloaded the BLUE this Monday and then loaded more on INTC and REGN. And we are still wait for the further change.

BLUE's quick drop caused about 10 thousand loss in our asset.

And what we hold temporarily is shown as the table:

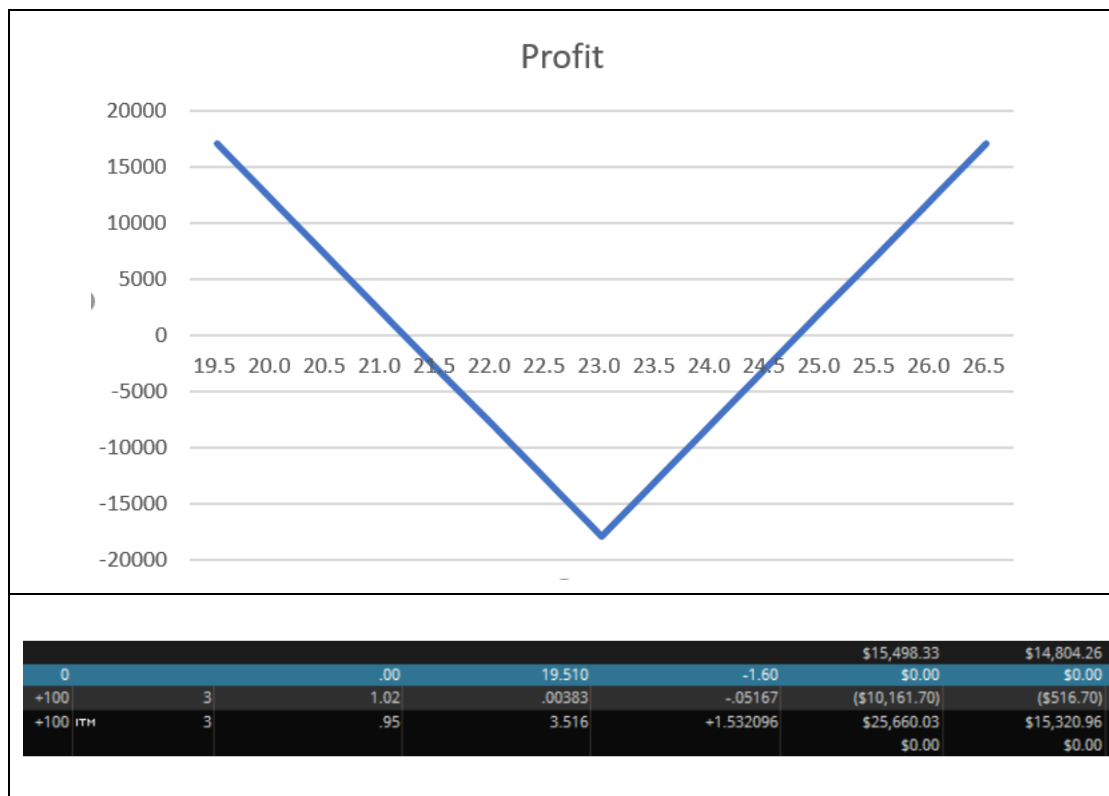|	Trade price	quantity	delta	value	Stand deviation of daily return	beta	Future number
TSLA	262.15	500	500	131,075	4.58524E-05	1.24	1.249
INTC	44.54	5000	5000	222,700	3.68986E-05	1.01	1.586
REGN	357.041	800	800	285,633	4.09599E-05	1.12	1.817
/NQ	7019.125	-4	-80	-561,530	3.65714E-05	1	-4.6

New portfolios, 11/28/2018：

We tried to set up our third trade portfolio here. As it came to be the time for JD to public its third quarter on 19th Nov., we observed that its stock price has consecutively dropped for almost half a year. Its daily return featured its high volatility in price. Regardless of the scandal of JD's president, JD's long-term drop was mostly due to its awful data in the semiannual. So, there might be a surprise in JD's third quarter which was superior to market's expectation. In order to eliminate the risk of big loss due to the stock's volatility, and because of high uncertainty of this company, we decided to trade some options in a straddle combination.

JD's stock price has dropped more than 50% just within 6 months.

We bought call options and put options in 100 contracts each other, underlying 10 thousand shares for both directions. And their strike prices are both 23 dollars. The anticipated profit was shown below:

					$15,498.33	$14,804.26
0		.00	19.510	-1.60	$0.00	$0.00
+100	3	1.02	.00383	-.05167	($10,161.70)	($516.70)
+100 ITM	3	.95	3.516	+1.532096	$25,660.03	$15,320.96
					$0.00	$0.00

And finally, our return came to this: