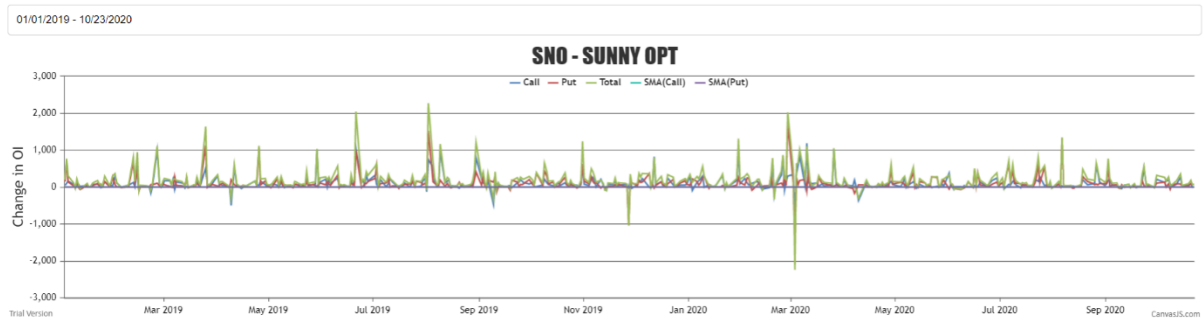
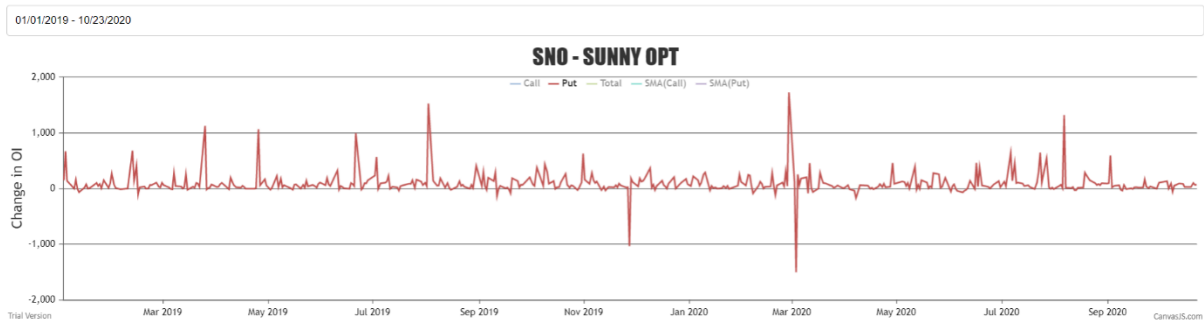


<https://brendanlui.azurewebsites.net/>

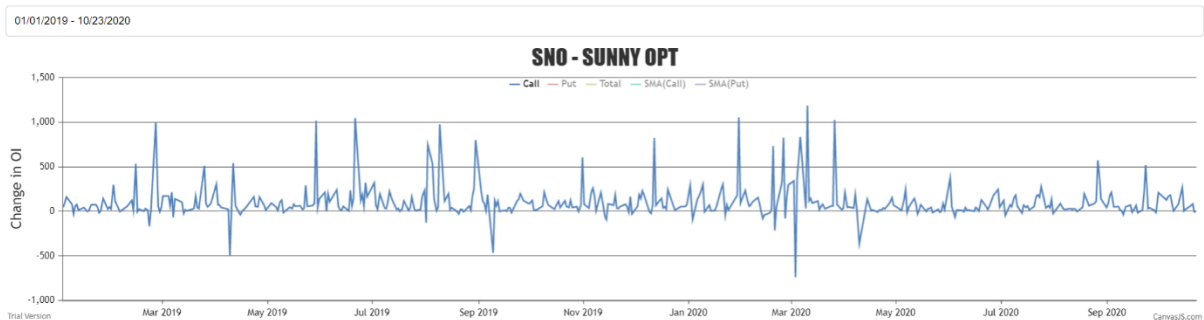
Diagram 1: Change in OI



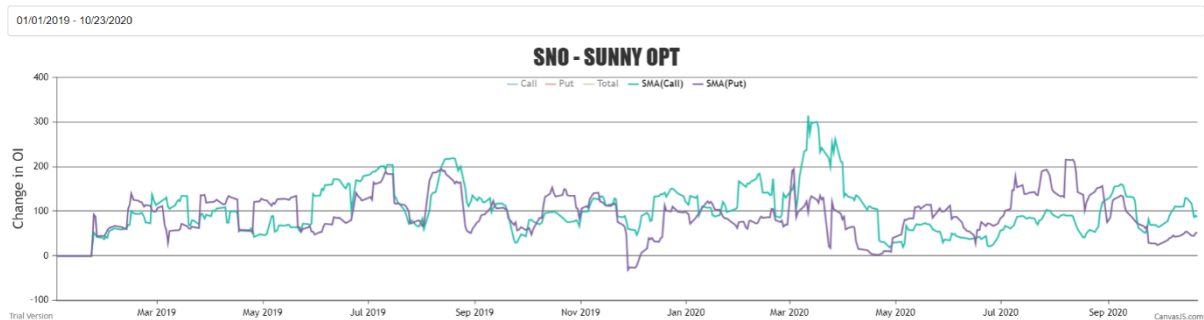
Show the sum of the number of the **change of open interest** per day when strike price is less than close price in PUT option which will be expired after a month.



Show the sum of the number of the **change of open interest** per day when strike price is larger than close price in CALL option which will be expired after a month.



Show the SMA of the **change of open interest** in CALL & PUT option



After inputting the SMA days, click the button to generate the signals if PUT SMA crosses CALL SMA.

SMA from Change in OI (Call & Put) : Range from 1 - 100 day(s).

Generate SMA from Change in OI (Call & Put) Signal(s)

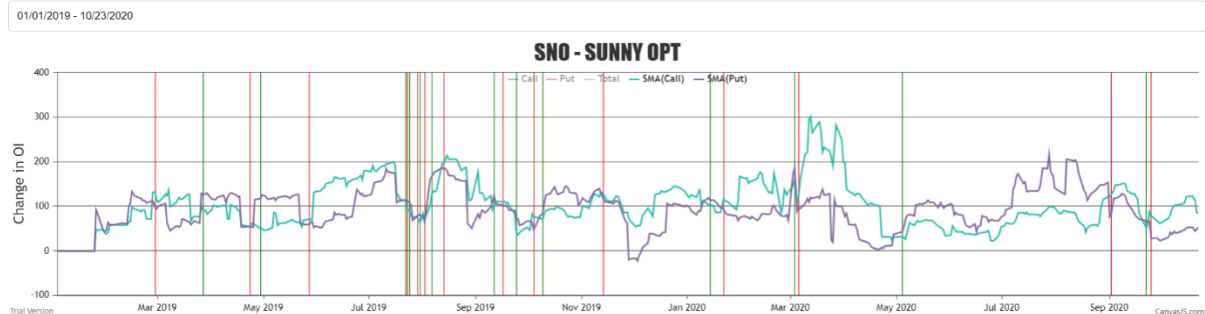
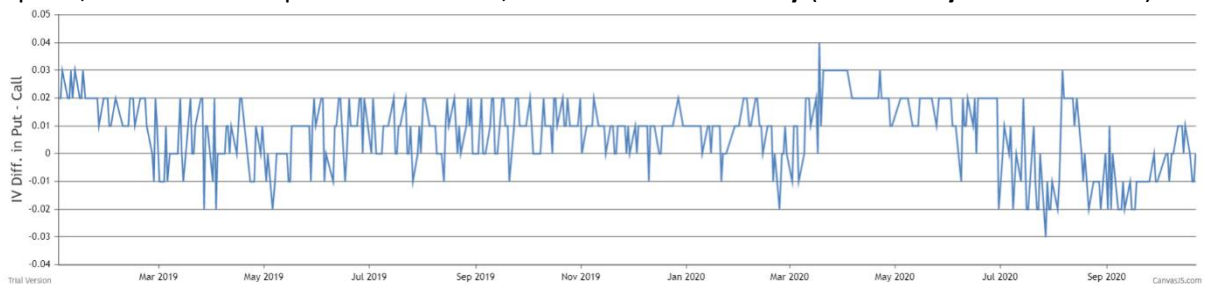


Diagram 2: IV Diff. in Put - Call

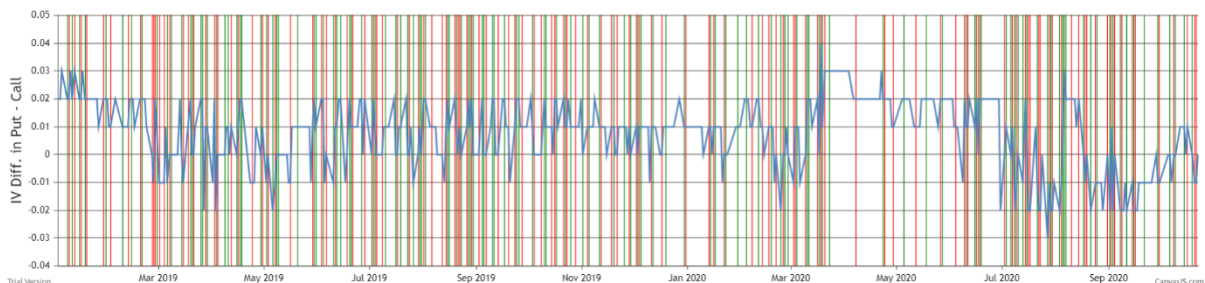
If the input value moneyness difference is 10, it will put the **IV** in PUT option to minus the **IV** in CALL option, which will be expire after a month, with both **out of money** (10% moneyness difference).



After inputting the moneyness difference value, click the button to generate the signals if today's value is larger than yesterday's value.

Moneyness Diff. : +/-2% by default. Range from 2 - 10.

Generate IV Diff. in Put - Call from Moneyness Diff. Signal(s)



After inputting two SMA days and moneyness difference value, click the button to generate the signals if 1st SMA crosses 2nd SMA.

SMA from IV Diff. (Put - Call) : Range from 1 - 100 day(s).

SMA from IV Diff. (Put - Call) : Range from 1 - 100 day(s).

Moneyness Diff. : +/-2% by default. Range from 2 - 10.

Generate IV Diff. in Put - Call from SMA Signal(s)

After inputting the range, click the button to loop through all possibility to get parameters in the global optimum solution.

SMA (From) SMA (To) Mon. Diff. (From) Mon. Diff. (To) Day Hold (From) Day Hold (To)

Generate the best solution from above IV Diff. in Put - Call from SMA Signal(s) in console

Diagram 3: HSI Volatility Index



We can use this data to set some conditions to screen out the signals.

Diagram 4: Volatility

Show an average IV and HV in PUT option and CALL option, which will be expire after a month, with at the money (0% moneyness difference).

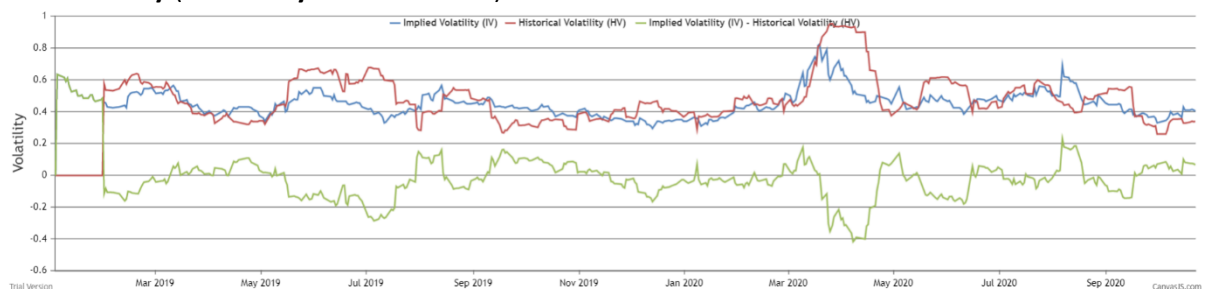


Diagram 5: Linear Relationship (1)

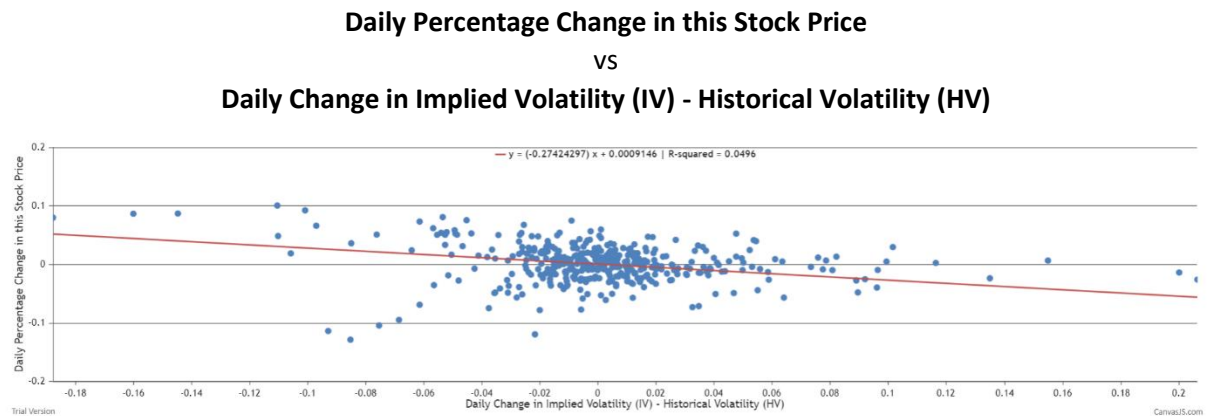


Diagram 6: Linear Relationship (2)

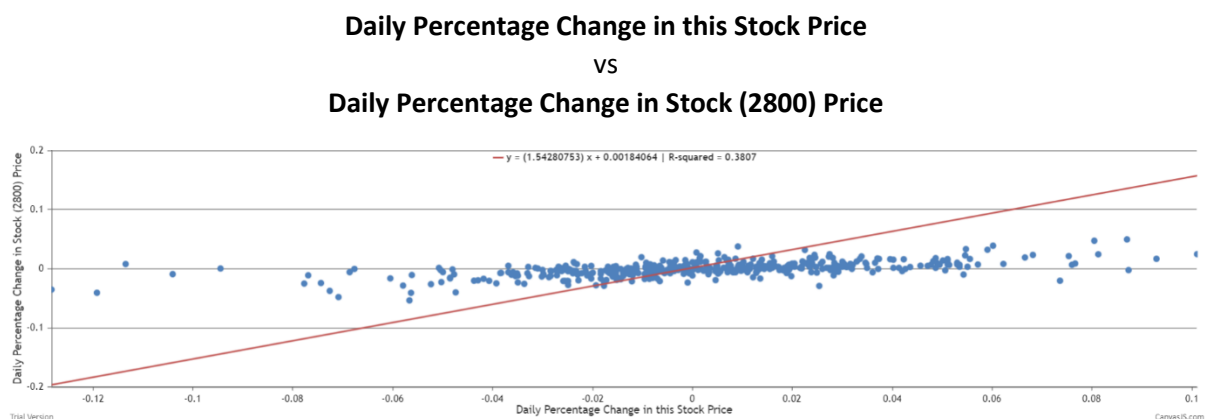
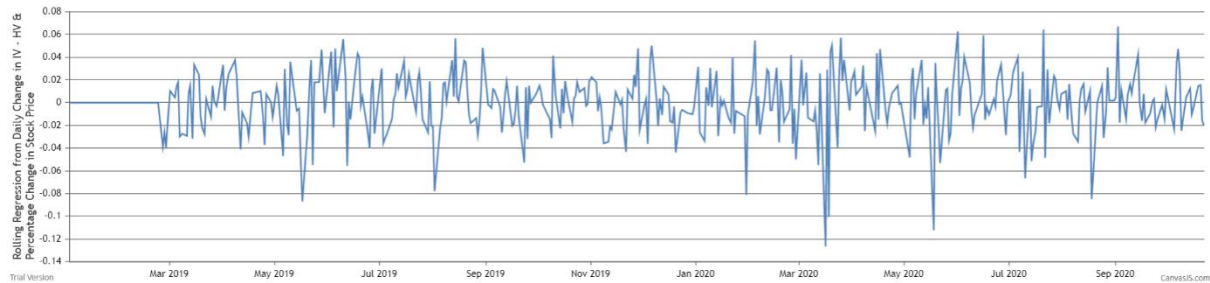


Diagram 7: Rolling Regression with above 2 linear relationship



After inputting the regression days and the bound value, click the button to generate the signals if rolling value exceeds the signal value range

Rolling Regression Day : 15 by default

Rolling Regression Signal Value

Generate Rolling Regression Signal(s) from Percentage Change in this Stock Price v.s. Daily Change in IV - HV

Generate Rolling Regression Signal(s) from Percentage Change in Stock (2000) Price v.s. Percentage Change in this Stock Price

15

0.02

Generate Rolling Regression Signal(s) from Percentage Change in this Stock Price v.s. Daily Change in IV - HV

Generate Rolling Regression Signal(s) from Percentage Change in Stock (2000) Price v.s. Percentage Change in this Stock Price

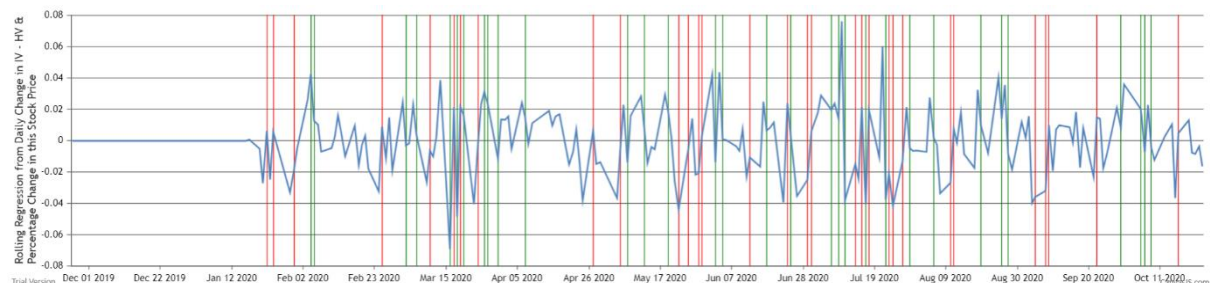
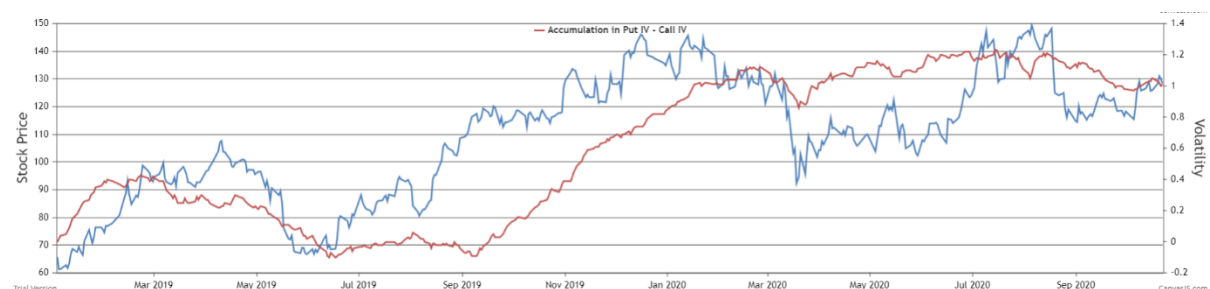
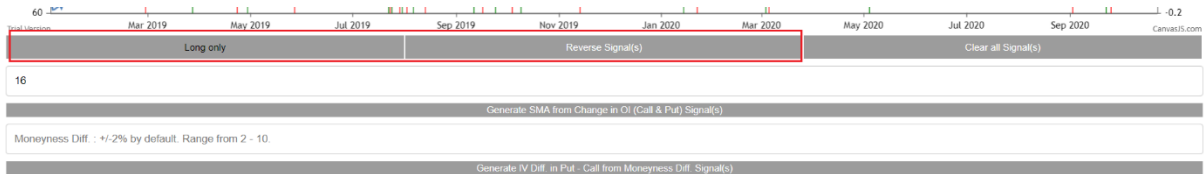


Diagram 8: Stock Price & Accumulation in Put IV -Call IV



Back Test Function:

- Long / Short
- Signal direction
- Any filter to screen out the signals
- Capital value
- Holding day(s)
- Ignore the signals when the holding days is less than your input value?



After that, click “Apply Strategy”.

Generate Moneyneess Signal(s) from Percentage Change in Stock / Put/Call Price v.s. Percentage Change in this Stock Price

Filter

Capital: \$10000 by default.

Day(s) Stock Hold: 999999999 working days by default.

☐ Higher Priority

Apply Strategy

Forward Test:

Running in Azure VM.

Administrator: Command Prompt

IBKR PRO IB GATEWAY

Purpose	Status
Interactive Brokers API Server	connected
Market Data Farm	disconnected
Historical Data Farm	disconnected
API Client	disconnected

Windows Server 2012 R2

4:23 PM 10/23/2020