**Report of CNN Greed and Fear Indexes**

In the CNN Greed and Fear Indexes, there are seven indexes which are used to evaluate the emotion of market. They are Stock Price Momentum, Stock Price Strength, Stock Price Breadth, Put and Call Options, Junk Bond Demand, Market Volatility and Safe Haven Demand. By these indexes, we can know whether investors are in fear to sink stocks well below where they should be or in greedy to bid up stock prices way too far. These indexes are helpful in timing strategy

**Stock Price Momentum:**

This index relies on the data of S&P500. By comparing its today’s data and 125-day moving average value, we can see the market emotion. If today’s value is much higher than the ma value, investors are in greedy. Otherwise, they are in fear.

**Stock Price Strength:**

This index is calculated by the number of stocks hitting 52-week highs and lows on the New York Stock Exchange, then compare it in the period of one year. Similarly, if today’s index is too high in this period, the market is in greedy. Otherwise, market is in fear

**Stock Price Breadth:**

This index is calculated by the volume of shares trading in stocks on the rise versus those declining. Obviously the higher of index, the more greedy

**Put and Call Options:**

This index is calculated by the call/put ratio, which compares the trading volume of bullish call options relative to the trading volume of bearish put options. More volume of call options shows that investors believe the stock price will rise. So, they are in greedy emotion.

**Junk Bond Demand:**

This index is calculated by the spread between yields on investment grade bonds (Moody's Seasoned Aaa Corporate Bond Yield) and junk bonds (ICE BofA BB US High Yield Index Effective Yield). It measures the spread yield for an investor to accept a riskier bond. So, the higher difference measures a greedier emotion.

**Market Volatility:**

This index comes from the data of CBOE MKT VOLATILITY IDX**(VIX)** directly, which measures volatility. Volatility has always been used for measuring risk. So higher index means less fear

**Safe Haven Demand:**

This index is calculated by the difference in returns for stocks(S&P500) versus Treasuries. In common sense, treasury is a kind of ‘safe’ investment. It measures the spread yield for an investor to accept a riskier investment method, sort of like **Junk Bond Demand.** So, the higher difference measures a greedier emotion.

For each indicator, we look at how far they have veered from their average relative to how far they normally veer. We look at each on a scale from 0 - 100. The higher the reading, the greedier investors are being, and 50 is neutral. Then we put all the indicators together - equally weighted - for a final index reading.

Source of data:

Treasury and Bonds come from Fred. Treasury is the 10-year Treasury Constant Maturity Date. Bonds are Moody's Seasoned Aaa Corporate Bond and ICE BofA BB US High Yield Index.

Stocks and Options come from Yahoo Finance.

Stocks’ tickers comes from NASDAQ