Project: Option Master

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This product is (temporarily) called OptionMaster. It is a daily traded pure option-based strategies pack. It is designed to earn money no matter what market situation is. The product is long-biased as in general we seldom buy puts to bet the sharp slump of the target market as we believe in the inner growth of the stock market. This product may not be so suitable to be an ETF or index. However, it can be a product of private investment funds or something else.

This product is based on the SPX options, which are Europe standard options of the S&P500 index. The product is constructed with six different strategies. These strategies covered different scenarios: We will proactively forecast the market trend and sell options as our primary strategy. We will also earn more money by buying some suitable options when the market goes wild. Sometimes we will buy some options when the day comes to the delivery date as the doom's date to bet on some extreme scenarios of the market. As we mentioned before, our team believes in the power of inner growth of the whole market and make our product long-biased, we will also hold some options position to acquire long term revenue from this power.

Weights of these strategies are dynamically allocated with some certain constraints. Our primary strategy will provide the safety base of other strategies. So it will be given the largest weight to ensure the safety and property of our account. Weights of other strategies will follow the principle of risk-return balance -- smaller win rate, smaller weight.

To make our performance more robust, we will also consider some factors and scenarios. For example, Illiquidity is a great problem for options trading. We will test the impact of different fund scales to find maximum money tolerance. What's more, some policy issue with a significant effect of the market like the UK leaving EU will also be focused. Some extreme events can also be simulated and tested in this project.

We have fetched required data from the WRDS database and Bloomberg terminal from 2000 to 2018. Unfortunately, we can not get the up-to-date data as the lag of WRDS. And we also do not have the open, high, low options price of each day. We will assume that all trades will be made at the end of one trading day using the best bid and best ask price. Of course, we will use the unfavourable price to trade in our backtest.

In our final presentation, we will provide our backtest performance, including the overall backtest, special scenarios tests, our investment philosophy, general ideas of each strategy and special affairs need to be focused. In the future, if we have more data about this product, the following issues can be fixed or optimised: the intraday trading simulation, algorithms trading design, the timing of trading and the possibility of being neutral rather than long-biased.