**Risk Management**

We plan to adopt some risk management approaches to each of our three strategies. Our approach contains three parts.

The first part is to analyze the target stock’s characteristics on the out-sample testing before conducting the strategies for in-sample trading. Strategies should only be applied if certain stock features are satisfied. For example, the MACD strategy requires a strong trend from the stock market, we first conduct trend detection, i.e., the Mann-Kendall test on the out-sample testing. If the test does not detect a strong trend in stock, we stop using the MACD strategy to avoid bad performance. Similarly, we abandon the RSRS strategy if we cannot find effective resistance or support on the out-sample testing, and abandon the multiple-factor strategy if we cannot find an effective correlation between price and volume.

The second part is to analyze the profit outcome of the out-sample testing. If a strategy performs a negative PD-ratio outcome on a specific stock, we set a lower position size against that stock. Otherwise, we set a higher position size for that stock if it tests well. If the PD ratio in the out-sample testing is below -50, we consider disabling that strategy to the specific stock. In addition, for strategies that have the lowest overall profit in the out-sample testing, we allocate no more than 20% of the total fund to it in the strategy combination session.

The third part is to supervise the performance during the in-sample trading. We calculate and rank the profits for every strategy on seasonal period bases. For the strategy whose profit ranks 1st in that season, we allocate 50% positions for it in the next seasonal trading period. For the 2nd and 3rd ones, we allocate 35% and 25% positions. If a strategy performs negative profit for continuing ten seasonal periods and does not have a warm-up trend, we disable that strategy on the stock. If all three strategies perform negative profit for continuing ten seasonal periods, we stop trading on that stock to stop loss and begin trading on the next stock. What’s more, if the overall PD ratio remains negative and keeps decreasing for ten seasonal periods, we also stop trading on that stock to stop loss.