

Automatic Investment Plan Results Summary

Assumption 1:

Target Market: SSEC Shanghai Composite Index

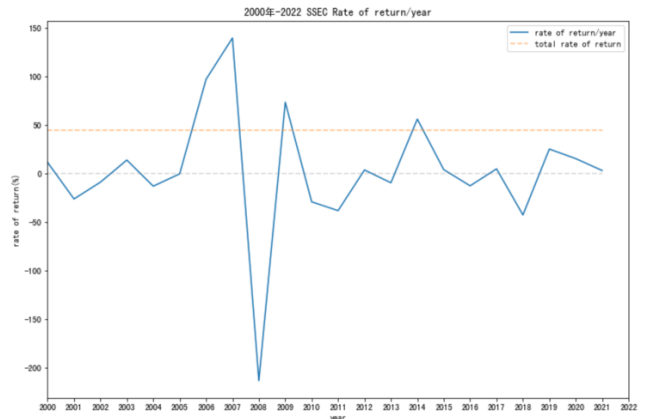
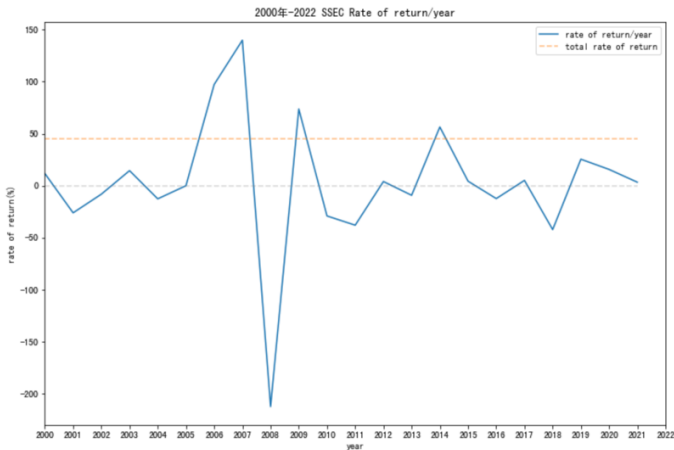
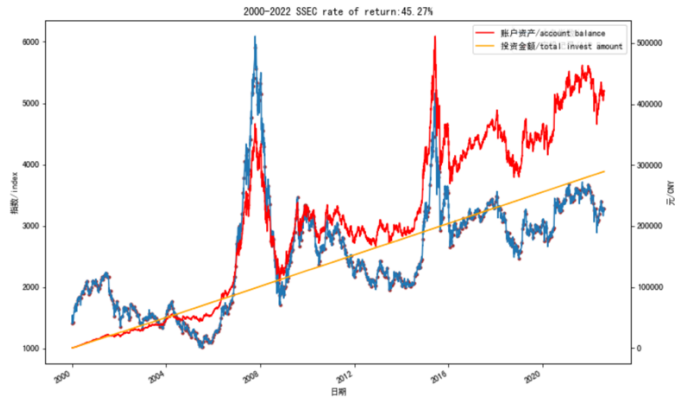
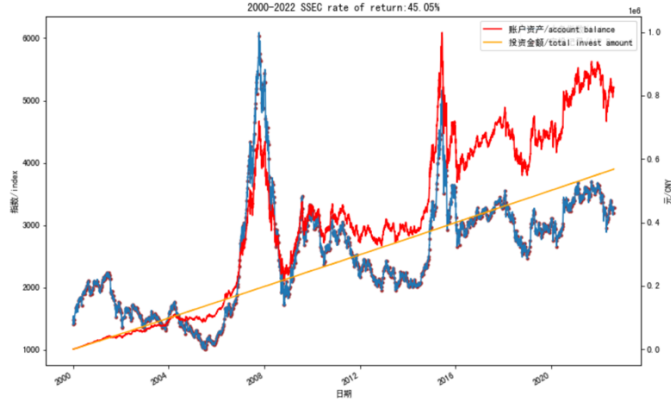
Duration: 2000-01-01 — 2022-08-18

frequency=7 #定投频率 7days
invest_money = 500 #每次定投金额

frequency=14 #定投频率 14days
invest_money = 500 #每次定投金额

2000-2022 AIP Results:
Total Investment: 568000
Total Revenue: 255897.936714785
Rate of Return: 45.052453646969184 %

2000-2022 AIP Results:
Total Investment: 289500
Total Revenue: 131054.39013260412
Rate of Return: 45.269219389500556 %

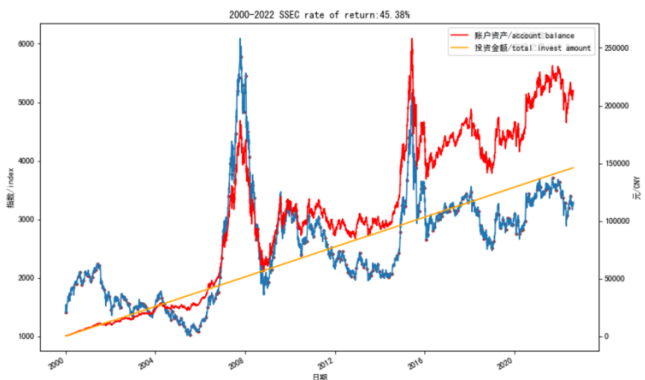
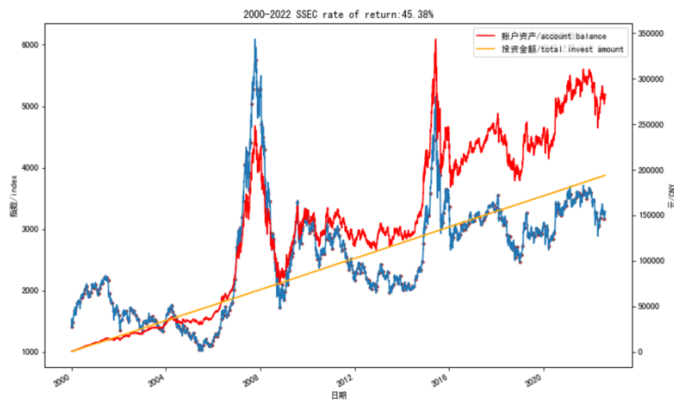


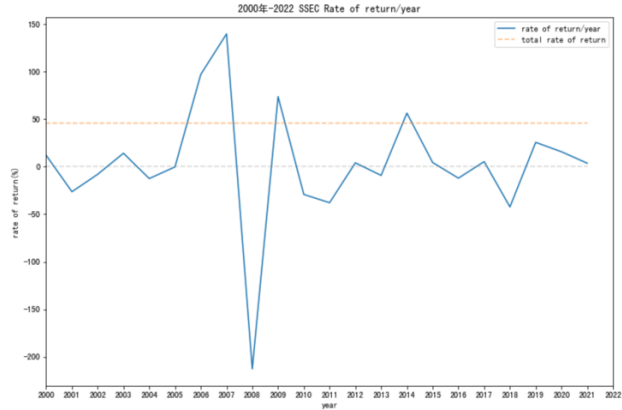
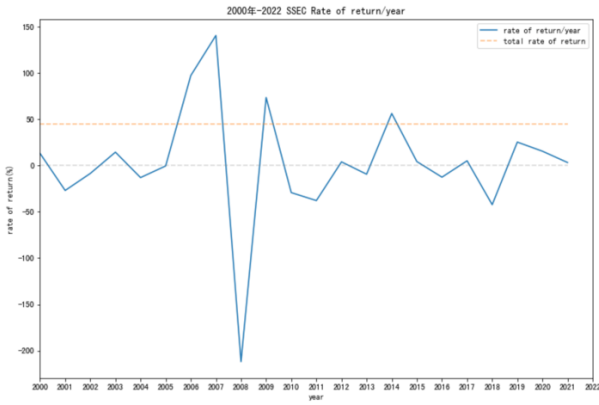
frequency=21 #定投频率 7days
invest_money = 500 #每次定投金额

frequency=28 #定投频率 28days
invest_money = 500 #每次定投金额

2000-2022 AIP Results:
Total Investment: 194000
Total Revenue: 88046.03866211482
Rate of Return: 45.38455601139939 %

2000-2022 AIP Results:
Total Investment: 146000
Total Revenue: 66253.29959265834
Rate of Return: 45.37897232373859 %



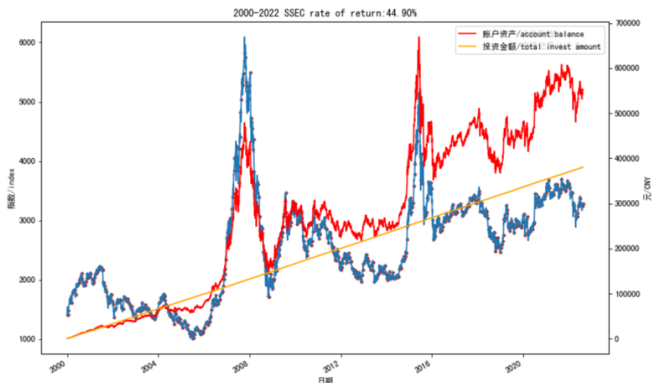
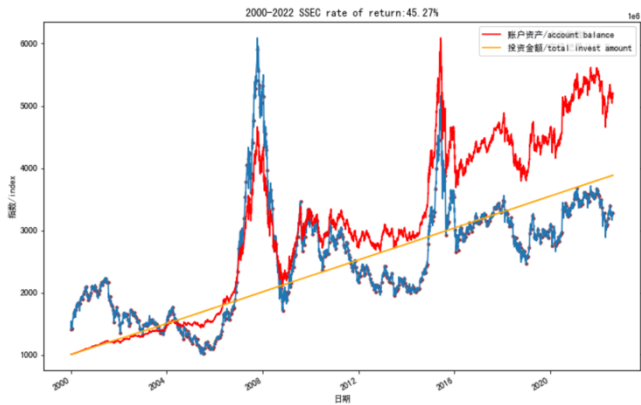


frequency=14 #定投频率 14days
invest_money = 1000 #每次定投金额

frequency= 10 #定投频率 10 days
invest_money = 500 #每次定投金额

2000-2022 AIP Results:
Total Investment: 579000
Total Revenue: 262108.78026520825
Rate of Return: 45.269219389500556 %

2000-2022 AIP Results:
Total Investment: 380500
Total Revenue: 170856.0142047245
Rate of Return: 44.903026072200916 %



Conclusion 1: With the above first four case assumptions (investment frequency of 7, 14, 21, 28 days) we can easily find that the frequency does not cause a significant change in the overall return over the 20 years, and the change in investment frequency does not result in a cumulative return in each year.

Although the total investment amount of the four cases is different because the frequency is different and each investment amount must be 500. However, the difference in the total investment amount does not cause any change to the conclusion.

The following two case, the first one is the total investment amount equal to the total investment amount in first assumption (frequency=7, investment = 500), and the second one is the investment frequency of non-week fixed day case. And we find same conclusion with the first four case.

Assumption 2:

Target Market: SSEC Shanghai Composite Index

Duration: 2000-01-01 — 2022-08-18

frequency=7 #定投频率 7days
invest_money = 500 #每次定投金额

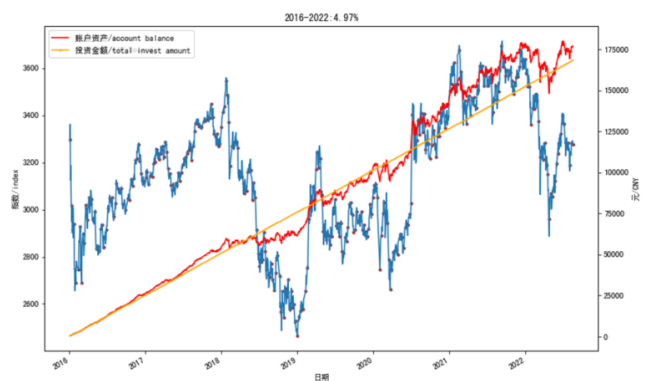
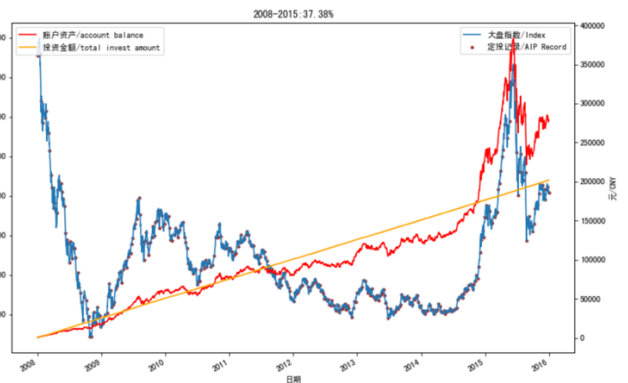
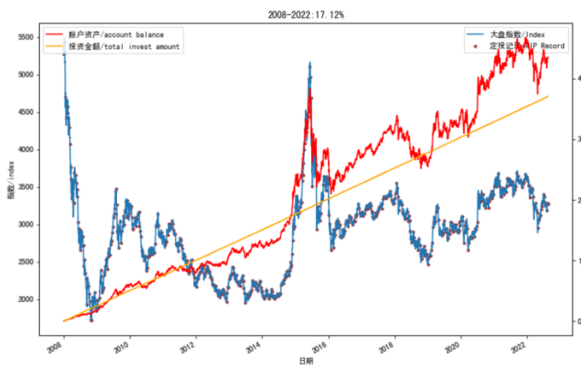
frequency= 7 #定投频率 7days
invest_money = 500 #每次定投金额

Two Section:
2000-01-01 — 2007-12-31
2008-01-01 — 2022-08-18

Three Section:
2000-01-01 — 2007-12-31
2008-01-01 — 2015-12-31
2016-01-01 — 2022-08-18

2000-2007 Section AIP Results:
 Total Investment: 197500
 Total Revenue: 428523.5497586923
 Rate of Return: 216.97394924490746 %
 2008-2022 Section AIP Results:
 Total Investment: 370500
 Total Revenue: 63436.29965287889
 Rate of Return: 17.121808273381617 %
 General 2000-2022 AIP Results:
 Total Investment: 568000
 Total Revenue: 491959.84941157117
 Rate of Return: 86.6126495442907 %

2000-2007 Section AIP Results:
 Total Investment: 197500
 Total Revenue: 428523.5497586923
 Rate of Return: 216.97394924490746 %
 2008-2015 Section AIP Results:
 Total Investment: 202000
 Total Revenue: 75498.31650891031
 Rate of Return: 37.37540421233184 %
 2016-2022 Section AIP Results:
 Total Investment: 168500
 Total Revenue: 8380.293316223477
 Rate of Return: 4.973467843456069 %
 General 2000-2022 AIP Results:
 Total Investment: 568000
 Total Revenue: 512402.1595838261
 Rate of Return: 90.21164781405389 %



Conclusion 2: The above results confirm my suspicion that long-term investments need to take into account the economic cycle which can improve the overall rate of return.

Assumption 3:

Target Market: SSEC Shanghai Composite Index

Duration: 2018.01.01-2022.8.18

Company: Alipay

Strategy Detail (500-day SMA)

- Within 15% above the average line, 90% deduction
- Above the average line 15-50%, 80% deduction
- Above the average line 50-100%, 70% deduction
- Above the average line 100% or more, 60% deduction

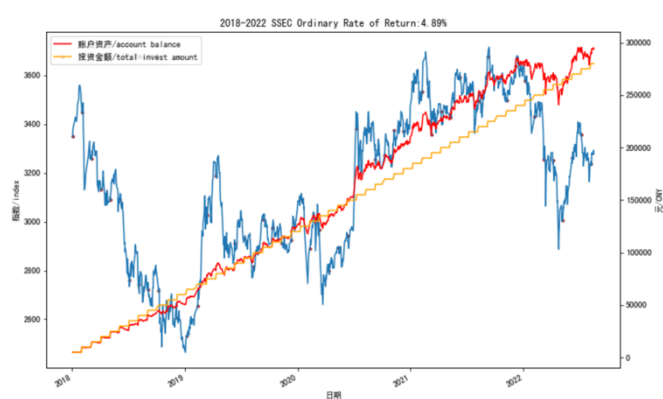
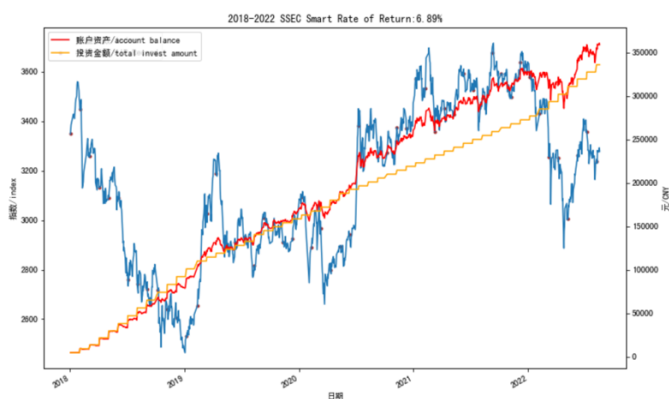
Smart Investment Strategy:

Total Investment: 336000.0
 Total Revenue: 23141.742914370618
 Rate of Return: 6.887423486419826 %

Ordinary Investment Strategy:

Total Investment: 280000
 Total Revenue: 13700.70310121346
 Rate of Return: 4.893108250433379 %

- Less than 5% amplitude in the last 10 days
 - o Within 5% below the average, 160% deduction
 - o Within 5-10% below the SMA, 170% deduction
 - o Within 10-20% of the SMA, 180% deduction
 - o Within 20-30% below the SMA, 190% deduction
 - o Within 30-40% below the SMA, 200% deduction
 - o Below the average line of 40% or more, 210% deduction
- Amplitude greater than 5% in the last 10 days
 - o Within 5% below the SMA, 60% deduction
 - o Within 5-10% below SMA, 70% deduction
 - o Within 10-20% below the SMA, 80% deduction
 - o Within 20-30% below the SMA, 90% deduction
 - o Within 30-40% below the SMA, 100% deduction
 - o Below the average line of 40% or more, 110% deduction



Assumption 4:

Target Market: SSEC Shanghai Composite Index

Duration: 2018.01.01-2022.8.18

Company: Fullgoal Fund Management

Strategy Detail (500-day SMA)

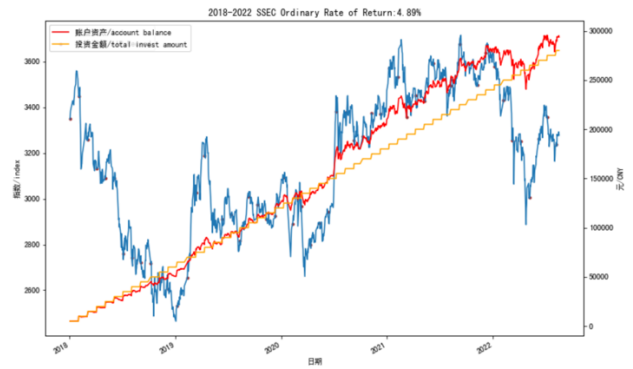
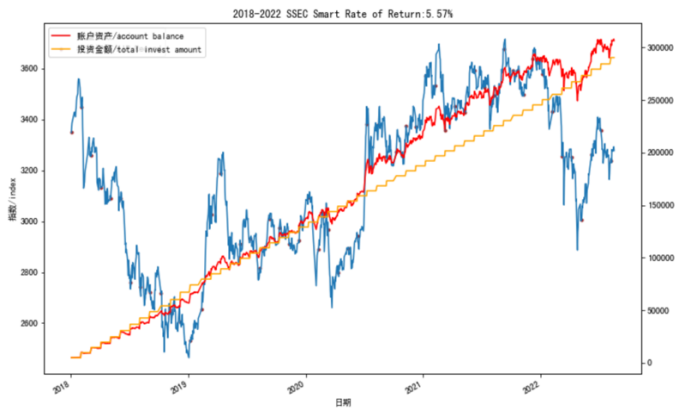
<http://www.fullgoal.com.cn/investment/zhineng/index.html>

Smart Investment Strategy:

Total Investment: 290500.0
 Total Revenue: 16166.334990933176
 Rate of Return: 5.565003439219682 %

Ordinary Investment Strategy:

Total Investment: 280000
 Total Revenue: 13700.70310121346
 Rate of Return: 4.893108250433379 %



Assumption 5:

Target Market: SSEC Shanghai Composite Index

Duration: 2018.01.01-2022.8.18

Company: E Fund Management

Strategy Detail (500-day SMA)

<http://www.efunds.com.cn/html/upd/201110/zhinengdingtou/index.html>

Smart Investment Strategy:

Total Investment: 301000.0

Total Revenue: 19214.361084846998

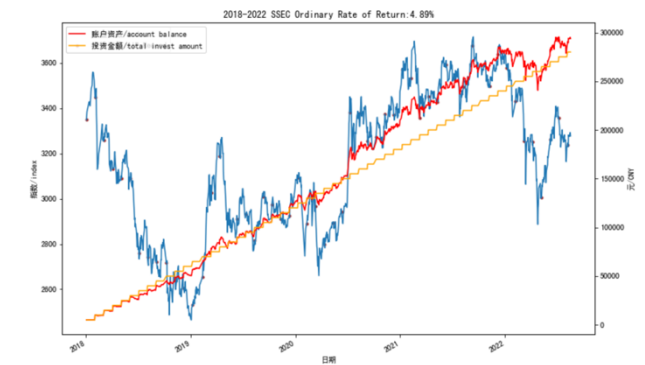
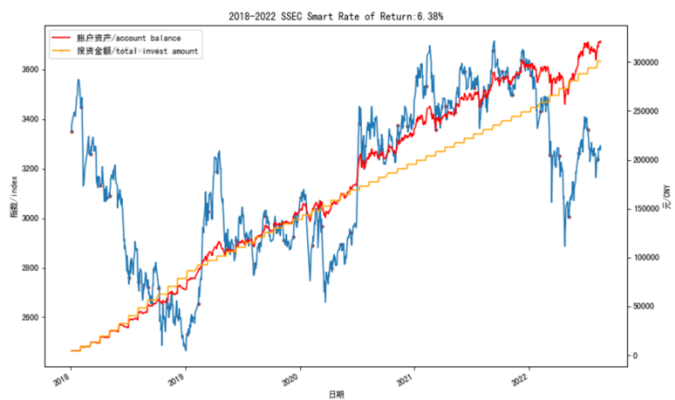
Rate of Return: 6.383508666062125 %

Ordinary Investment Strategy:

Total Investment: 280000

Total Revenue: 13700.70310121346

Rate of Return: 4.893108250433379 %



Conclusion 3: By examining the SSEC index data from 2018 to 2022, using the 500-day average method (500-day SMA), it was found that the overall return of Aplipay would be more objective compared with Fullgoal and Efund. The three smart auto investment plan strategy will behave much better compared with the ordinary strategy.

General Conclusion:

Employ python and SSEC closing price data from 2000 to 2022 to explore the application of the moving average method in smart auto investment plan. Find a result that long-term investments need to take into account the economic cycle which can improve the overall rate of return. Besides that, with a uniform investment strategy, the overall rate of return is almost the same for different investment frequencies within a certain investment duration. By exploring the 500-day moving average investment strategies of Alipay, F&C and Efund, we find that strategy of Alipay only triggers the deduction when it encounters some long-term and particularly large market fluctuations which might be slow to react to market variance. But for an overall stable rebounding upward market, the strategy instead performs better.