FBA | QUANTITATIVE FINANCE RESEARCH GROUP

Financial AI

Homework 7

Due at 06:00 pm (Korea Standard Time) on Saturday.

Problem 1. Fundamental Value Factor

(a) Implement PBR based value factor portfolio with KOSPI stocks and compare the performance of the portfolio with the market (KOSPI). You can get the PBR data from

http://data.krx.co.kr/contents/MDC/MDI/mdiLoader/index.cmd?menuId=MDC0201020502

You should create a long-short portfolio based on PBR of stock. Percentile for to decide the position (long/short) and rebalancing frequency can be chosen manually. Performance should include annualized return, annualized standard deviation, Share ratio, Sortino ratio, drawdowns, and maximum drawdown.

(b) Using data from

http://data.krx.co.kr/contents/MDC/MDI/mdiLoader/index.cmd?menuId=MDC0201020506

check how the fundamental value factor portfolio weight is spread around industries. Discuss about the result. Is the result desirable? How can we fix or enhance it?

Problem 2.

(a) Find any quantitative strategy you want to implement and introduce it.

(b) Implement the strategy and compare the performance with the KOSPI index. Performance should include annualized return, annualized standard deviation, Share ratio, Sortino ratio, drawdowns, and maximum drawdown.