Empirical Finance: Course Work 2

Your team has been recently hired by **Imperial Global Asset Management**, and your task is to run a few exercises. Below, you find the guidelines about your assignments, but you can amend the specifications if you have plausible economic arguments. Finally, write a brief investment report no longer than about 3,000 words (this is just an indicative) as a financial economist. Describe what you have done and present the key results. There is no need to write any formulas. You can also be creative and report whatever may convince an investor to bet on your strategy. Whether a strategy works or not, try to come up with an economic story that explains why this is the case. Last but not least, make any assumptions you need, but please mention them. You do not need to submit codes and/or excel files.

Exercise 1 [50%]

Using monthly excess returns on currency factors (net of transaction costs), answer the following question. Download the data from `www.currencyfactors.com`.

Question

1. Can you combine these long–short strategies using an **ex-ante model combination** approach? Follow the methodology described in the Internet Appendix of *Currency Speculation*, available here.

2. Propose and implement an alternative ex-ante combination methodology.

3. Present summary statistics (e.g., mean, volatility, Sharpe ratio, Sortino Ratio, etc) and plot cumulative returns of the combined strategy.

Exercise 2 [50%]

Collect currency-sorted portfolios on carry, value, and momentum (1-month, 3-month, 6-month, and 12-month) for a total of 30 portfolios from `www.currencyfactors.com`. Use only portfolios labeled P1, P2, P3, P4, and P5 for each strategy.

Questions

1. Run Fama–MacBeth regressions using DOL and CAR (available on the same website) as risk factors. Report estimates of the factor prices of risk and factor loadings (quantities of risk).

2. Augment CAR and DOL with the first log difference of global realized volatility, run Fama–MacBeth regressions, and report estimates of the factor prices of risk and factor loadings. Global realized volatility data are available here.

3. Discuss and interpret your results.

Good Luck!