1 Problem 1

Suppose that in Japan the interest rate is 8% and inflation is expected to be 3%. Meanwhile, the expected inflation rate in France is 12%, and the English interest rate is 14%. To the nearest whole number (in % terms), what is the best estimate of the one-year forward premium (discount) at which the pound will be selling relative to the Euro?

2 Problem 2

Download the data on return to excess returns on currency portfolios from here:
`http://web.mit.edu/adrienv/www/CurrencyPortfolios.xls`

Which is based on: Lustig, Hanno, Nikolai Roussanov and Adrien Verdelhan, "Common Risk Factors in Currency Markets", Review of Financial Studies, November 2011, Vol. 24 (11), pp. 3731-3777.

Use the data in "Developed currencies(net)" tab

a. Construct a portfolio that shorts the first portfolio and goes long in the fifth portfolio. Plot the cumulative return of this strategy over time.

b. Estimate the loading of this strategy on equity market volatility.

c. How has this strategy has performed since 2010? Can you think of any reason for that?

3 Problem 3

Construct the PPP spot rate and the real exchange rate for at least 5 exchange rates. CPI data are available from the OECD database (`https://stats.oecd.org/`) while exchange rate data from Global Financial Database (`https://finaeon.globalfinancialdata.com/`) and Datastream.
Pick one exchange rate. Is it mean-reverting? (Hint: use an AR(1) model.)