

Assignment 3

Applied Financial Econometrics
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1. Download the daily historical price for the last ten years for two stocks of your interest. These stocks must fulfill the same sector (i.e., industrials, consumer staples, financials, utilities, etc.). Repeat the procedure for a new pair of stocks belonging to a different sector (Four stocks in total). For example, KO & PEP (Consumer Staples) and HP & IBM (informatics).
 - (a) Are the stock prices stationary? What about of the log-prices? Are both an Integrated process? Which order?
2. For the whole log-prices used in the previous point compute an ARMA (1,1), ARMA (1,0), and ARMA (0,1) and evaluate which one is better.
3. Using the VIX index and the ARIMA modelling (the best one) predict the 1-month implied volatility for the following week.

**You should deliver R code + Answers (for example Power Point)
via IS by the end of the seminar**