MASTER 2, Econometrics I

Homework # 3

Due date: Friday December 14

You have to work in groups of students (maximum number of students is 4).

Grading: 10% of the final mark.

Problem I: Consider two independent ARMA(1,1) processes x_t and y_t. Define z_t as their sum ($z_t = x_t + y_t$). What are the dynamics of z_t?

Problem II:

1. Study the time series properties of the following data (ACF, PACF, unit root tests, best ARIMA model). It is recommended to use Eviews.

   (a) Monthly data of inflation of a developed country.

   (b) Monthly or quarterly data of inflation of an emerging country.

   (c) Quarterly GDP data of a developed country.

   (d) GDP data of an emerging country.

   (e) Interest rate of developing country.

   (f) Exchange rate of a developing country against the US dollar.

2. Study the forecasting in sample and out-of-sample of the inflation and the GDP of the developed country you studied above.