Macroeconometrics − List 2

Interest rate spread and output growth in the US.

From the FRED database of the St. Louis Fed (http://research.stlouisfed.org/fred2/) download data for the 10Y government bond (mnemonic GS10), the federal funds rate (mnemonic FEDFUNDS) and the real GDP (mnemonic GDPC1).

Instructions: You can work in groups of two. I need the .m files you use and a .pdf file with an explanation of what you do. The files must be included in a single .zip file. The name of the file must contain the names of the people of the group.

PART 1

(a) Create the spread as the difference between the long and the short rate. To transform the spread into a quarterly variable construct the within-quarter averages. Create the growth rate of real GDP.

(b) Using the growth rates of real GDP and the spread, estimate a VAR(4).

(c) Compute and plot the impulse response functions of the Wold shock (the Wold representation).

PART 2

(a) Identify a financial shock as a shock that has no effect on GDP contemporaneously but has effects on the spread.

(b) Plot the (point estimate) impulse response functions and 68% confidence band constructed using bootstrap.

(c) Compute the variance decomposition.