ECON 302

Econometrics II

<u>Homework 3 (due on the 27th of May)</u>

The attached is quarterly data for Turkey consisting of real consumption, investment and GDP along with the real interest rate. Using the data run a VAR regression and answer the questions below.

1) Run an unrestricted VAR, determine optimal lag length.

2) Conduct a Granger causality test, explain your results in the light of economic theories you know. Is this correspondence a one-to-one match with those theories.

3) Conduct impulse response analysis (graphs, analytical standard errors, and with the order real interest rate, investment, consumption and output). Interpret your graphs. How are the results different than Granger causality, why?

4) Interpret your results according to the economic theories you know.

5) Conduct variance decomposition analysis. Interpret your results and compare them with Granger causality.

6) Change the ordering of variables to GDP-consumption-real rate-investment. How do your results change? Why do your results change?