Homework 4: Becoming an empirical macroeconomist
(Due Monday, May 24 in class)

This homework asks you to use Eviews to examine some time series. Here is what you need to do:


2. Go to the FRED web site (at the St. Louis Federal Reserve Bank site) and obtain quarterly data for the following series (the data identifiers are in parentheses):
   - GDP (GDPC96)
   - Consumption of non-durables (PCNDGC96)
   - Consumption of services (PCESVC96)
   - Gross private domestic investment (GPDIC96)
   - Durable goods consumption (PCDGCC96)
   - Aggregate Weekly Hours Index: Total Private Industries (this is a monthly series - convert to quarterly by averaging. (AWHI)
   - Civilian non-institutional population over age 16 (this is also a monthly series). CNP16OV

3. Measure consumption as the sum of non-durables and services.

4. Measure investment as the sum of durable goods and gross private domestic investment.

5. Express all variables in per-capita terms and take logs -- in the steps below use these series.

6. Plot gdp - identify the recessions.

7. Plot gdp and hours on the same graph.

8. Detrend gdp, consumption, and investment using the HP filter - plot the detrended series on the same graph. (Since this is quarterly series, set the penalty term (lambda) = 1600.)

9. Using the detrended series and hours (not detrended), calculate the standard deviations and the correlations of all series with gdp.

10. Repeat 8. and 9. using the Baxter-King band pass filter (this is now available on Eviews – use the setting so that the frequencies shorter than 6 quarters and longer than 8 years are filtered out)

Present your tables and graphs in the form of a SHORT paper (therefore add some commentary to your results). That is, briefly describe some of the features that you see in the data.