

Assignment No. 2

1. Using an Internet mapping page such as mapquest.com, create a map of your hometown and answer the following questions:
 - a. How is the map like a model?
 - b. Could you use this map to determine distance from one place to another? Traffic speed? What do your answers suggest about (i) which elements to consider when using a map or a model (ii) the limitations of a particular map?
2. Would you expect differences among economists' opinions to be completely eliminated as time goes on? Why or why not?
3. Please write brief but complete answers:
 - a. What is the basic economic problem?
 - b. What three problems must any economic system solve?
 - c. How does capitalism solve these three problems?
 - d. How does Soviet-style socialism solve these three problems?
4. Why do most economists oppose trade restrictions?
5. STATA exercise:
 - a. Go to the web site of the Federal Reserve Bank of Saint Louis and look for the FRED database (www.stls.frb.org). Download the series of quarterly data for US Real Gross Domestic Product in Chained 1996 dollars, from 1950:1 to 2001:1.
 - b. Plot the series against time.
 - c. Compute the series of natural log of GDP and do a time plot for it. Compare this graph to the previous one.
 - d. Decompose the GDP series into trend and cycle using a linear deterministic trend model, i.e. run the following regression: $y_t = a + bt + e_t$. Now use your estimates and fitted values to find the trend and the cycle of the original series (NOTE: Define the trend as the fitted values of the regression above (a+bt) where a and b are the OLS estimates for **a** and **b** and define the cycle as y_t minus the trend.)
 - e. Plot in the same graph the trend (predicted values) and the original data against time.
 - f. Plot the cycle against time. What can you say about the stationarity of the cycle (detrended) series?