

Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. The computer work of the laboratory should not have your name anywhere I can easily see it. Your name should only appear on the first page of the Excel file which does not have any answers on it. It should be e-mailed to me at [wcsaplar@bethanywv.edu](mailto:wcsaplar@bethanywv.edu) when the laboratory ends. Failure to follow these directions will cost you 1 point on the assignment.

**The first part of this assignment will be done as a homework assignment and handed in at the end of the laboratory with the written part of the answers to the laboratory. The second half of this will be done during the laboratory.**

Homework questions:

- 1) (15 points) Why don't one-time shocks to our economy cause business cycles?
- 2) (15 points) Did Adelman and Adelman find that Type I or Type II shocks had a greater effect on the variables? What is the economic reason for that result?
- 3) (15 points) Adelman and Adelman extrapolated the exogenous variables in the future. What is a potential problem that could arise from that extrapolation?

Laboratory questions:

- 4A) (11 points) Suppose that the economy is modeled by:  $C = \beta_1 Y_{-1}$ ,  $I = \beta_2 (C - C_{-1})$ ,  $X - M = 0$ , and  $G$  is exogenous. Find the reduced form equation for  $Y$ . Run four simulations and plot the time paths. The simulations are:
- B) (6 points)  $\beta_1 = 0.9$  with  $\beta_2 = .4$
  - C) (6 points)  $\beta_1 = 0.8$  with  $\beta_2 = 1$
  - D) (6 points)  $\beta_1 = 0.8$  with  $\beta_2 = 2$
  - E) (6 points)  $\beta_1 = 0.8$  with  $\beta_2 = 3$ .
- 5) Using the data on the disc, run forecasts of sales for 20 periods using the following methods.
- A) (5 points) No change
  - B) (5 points) Same change
  - C) (5 points) Same ratio
  - D) (5 points) Partial adjustment