

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 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 each) For each of the following cycles, explain the theory behind it. What is the greatest weakness of the theory?

- A) Kitchin Cycles
- B) Kuznet Cycles
- C) Kondratieff Cycles

Laboratory questions:

2) Suppose the economy is described by the following equations:

$$C = 100 + 0.8(Y-T)$$

$$I = 60 + 0.3Y_{-1} - 1000R$$

$$G = G$$

$$X - M = 250 - 0.5Y$$

$$T = -125 + 0.25Y.$$

- A) (25 points) Derive the short-run autonomous expenditure multiplier.
- B) (10 points) Use the spreadsheet to determine the baseline, long-run level of GDP if last year's GDP was 1000, G is 300, and $R = 0.10$. Plot the time path of GDP.
- C) (10 points) Use the spreadsheet to determine the long-run level of GDP if last year's GDP was 1000, G goes to 310 for one period, and R stays at 0.10. Plot the time path of GDP.
- D) (10 points) Use the spreadsheet to determine the long-run level of GDP if last year's GDP was 1000, G permanently goes to 310, and R stays at 0.10. Plot the time path of GDP.