

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. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. The Excel file will be handed in via Moodle. Your name will only appear on a page of the file that has nothing else on it. Failure to follow these directions will cost you 1 point on the assignment and failure to type it will cost you 10 points.

1) Suppose consumption is 80% of the average of this year's and last year's GDP. Investment is 10% of last year's consumption. Government spending is \$500. Exports are \$100. Imports are 20% of this year's GDP.

A) (5 points) Write the equations I described above.

B) (15 points) Find the current level of GDP as a function of government spending and lagged GDP. Show all work.

C) (20 points) Use Excel to fill in a table which will simulate GDP over time assuming the previous two years had a GDP of \$400 and last year's consumption was 320. Add additional columns which represent C, I, and X. Enter the formulas to calculate those variables.

D) (10 points) Run the simulation again with a permanent increase in government spending to \$420 starting next year. What are the short-run government spending multiplier, the long-run government spending multiplier for a permanent increase in government spending? How did you get them?

2) (25 points each) Illustrate the following events on both the SRAS/LRAS/AD diagram and the IS/LM/FE diagram. Explain why the curve(s) moved as drawn.

A) Government spending increases.

B) The cost of oil increases.