

Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Turn in the Excel file via Moodle. Place your name on an otherwise blank page of the Excel file. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

The material for Question #1 below will be covered during the computer lab on 9/1 and you will do it during the computer lab. The other questions should be answered before the lab.

1) Suppose consumption is \$80 more than 80% of this year's disposable income. Investment is 20% of last year's GDP. Government spending is \$300. Exports are \$400. Imports are 14% of this year's GDP. The taxes are 30% of income.

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 variable(s). Show all work.

C) (15 points) Use Excel to fill in a table which will simulate GDP over a 20-year period and assuming that the previous GDP was \$2,000. Run the simulation again with a one-time increase in government spending to \$330. Repeat with a permanent increase in government spending to \$330. Show all three simulations on the same sheet.

D) (5 points) What are the short-run government spending multiplier, the long-run government spending multiplier for a temporary increase in government spending, and the long-run government spending multiplier for a permanent increase in government spending? How did you get them?

2) (30 points) Illustrate an increase in the government spending on the LRAS/SRAS/AD diagram and the IS/LM/FE diagram. Explain why the curves moved as drawn. What happens to GDP, interest rates, and the price level?

3) (30 points) Illustrate an increase in the Fed's purchase of bonds on the LRAS/SRAS/AD diagram and the IS/LM/FE diagram. Explain why the curves moved as drawn. What happens to GDP, interest rates, and the price level?