

Do not put your name anywhere on the assignment, other than on the back of this sheet of paper. Staple your answers on the front of this sheet of paper. Hand the Excel file in via Moodle. Failure to follow these directions will cost you 1 point. 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 do double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (25 points each) Show each of the events on both the IS/LM/FE diagram and the SRAS/LRAS/AD diagram. Explain why the curves moved as drawn. What happens to GDP, the price level, and interest rates?

- A) There is a negative productivity shock.
- B) The money supply increases.

2) Suppose consumption is 90% of the average of this year's and last year's GDP. Investment is 10% of last year's GDP. Government spending is \$600. Exports are \$300. Imports are 0.5% 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 variables. Show all work.
- C) (15 points) Use Excel to fill in a table which will simulate GDP over a 40-year period and assuming that the previous GDP was \$1,520 last year and \$1500 two years ago. Run the simulation again with a one-time increase in government spending to \$700. Repeat with a permanent increase in government spending to \$700. Show all three simulations on the same sheet.
- D) (10 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?
- E) (5 points) Graph the path of GDP from year 0 on. What would you call that pattern?