

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.

1) (15 points) This cartoon can be found at: <http://www.gocomics.com/shoe/2013/08/28>. Do you agree with the conclusion? Explain your logic.



3) (10 points each) For each of the following, tell me the probability that the economy is moving towards a recession or a boom. State how you reached your conclusions.

- A) Housing permits go down for three months straight during a boom.
- B) Average duration of unemployment goes down for two months during a recession.
- C) Change in labor costs per unit increased 2% in one month during a recession.
- D) Industrial production goes down 0.7% in one month during a boom.
- E) Initial claims for unemployment insurance go up 4% during a boom.

The material for Question #4 below will be covered during the computer lab on 9/2 and you will do it during the computer lab. The questions above should be answered before the lab.

4) Suppose consumption is \$200 more than 75% of the average of this year's disposable income and last year's disposable income. Investment is 10% of this year's GDP. Government spending is \$600. Exports are \$400. Imports are 15% of this year's GDP. The taxes are 1/3 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) (10 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 \$630. Repeat with a permanent increase in government spending to \$630. 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?