

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 10 points. Turn in the Excel file via e-mail. 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) Suppose the economy is described by $C_t = 100 + .8((Y_t + Y_{t-1})/2 - T_t)$, $T_t = .2Y_t$, $I_t = \frac{1}{4}Y_t$, $G = 800$, $NX_t = 200 - .09Y_t$. Use these equations to answer this question.

A) (30 points) Use the system of equations to solve for Y as a function of exogenous variable(s) and parameters.

B) (10 points) Put the equations into an Excel spreadsheet. Use it to find the GDP for the next 60 years if the current GDP is \$3400.

C) (15 points) Use the Excel spreadsheet to find both the long-run government spending multiplier and the short-run government spending multiplier if government spending went up by \$10.

2) (10 points each) For each of the following, determine the probability that the economic situation is changing. Explain your logic.

A) Suppose stock prices decreased for three consecutive months during an expansion.

B) Suppose stock prices increased 7% in one month during a contraction.

3) (10 points) Why do you think the first column of numbers in Table 3 of the supplemental text is the same as the first column of numbers in Table 4? (There is one difference, which I assume is a typographical error.)

4) (15 points) Why does the size of the trend reversal (Table 4) matter to the probability of a changing economy? Explain your logic.