

PROBLEM SET #3 (2 % of grade; 10 points possible)

DUE: At Wed or Thurs section, October 31/November 1

Problem sets lose 5 points if they are 0 minutes - 24 hours late after the start of section. No problem sets accepted more than 24 hours after section begins. Your submitted work must be your own: Problem sets that are identical (in whole or in part) to another student's problem set will receive a zero.

IMPORTANT: *Place your answers in the area indicated. Except as noted, problem set answers must be on this sheet to be graded.*

1. (1 point) Unemployment Equilibrium

What does it mean for the economy to be in an "unemployment equilibrium"?

2. (2 points total) Unemployment and inflation

a. Based on the work you did for section exercises #11 and #13, write a paragraph that describes the current unemployment situation in the United States. Be sure you place today's situation in some sort of context, be that historical or global.

b. Based on the work you did for section exercises #11 and #13, write a paragraph that describes the current inflation situation in the United States. Be sure you place today's situation in some sort of context, be that historical or global.

3. (1 point total) Investment

Decreased construction spending – a component of investment – led the way into the 2007-2009 recession. Explain why a drop in housing prices caused a drop in investment in housing construction. Include the concept of “expected rate of return” in your answer.

4. (1 point total) Categorizing Spending

For each activity below, indicate to its right whether the activity would be recorded as investment spending, purchase of an intermediate good, or something else. Give a brief (one phrase) explanation of your answer.

- a. Your sister, a California resident, buys a new refrigerator to use in her catering business

- b. Your sister pays for electricity to run the new refrigerator

- c. The Econ Department at UC Berkeley buys a new refrigerator for faculty & staff to use.

- d. Your sister hires contractors to build a commercial kitchen for her catering business.

- e. Do your answers to parts (a) - (d) depend upon whether the goods are produced in the United States or abroad? Why?

For question 5, you must attach your work on separate sheets of paper, or no credit.

5. (2 points total) Equilibrium Output

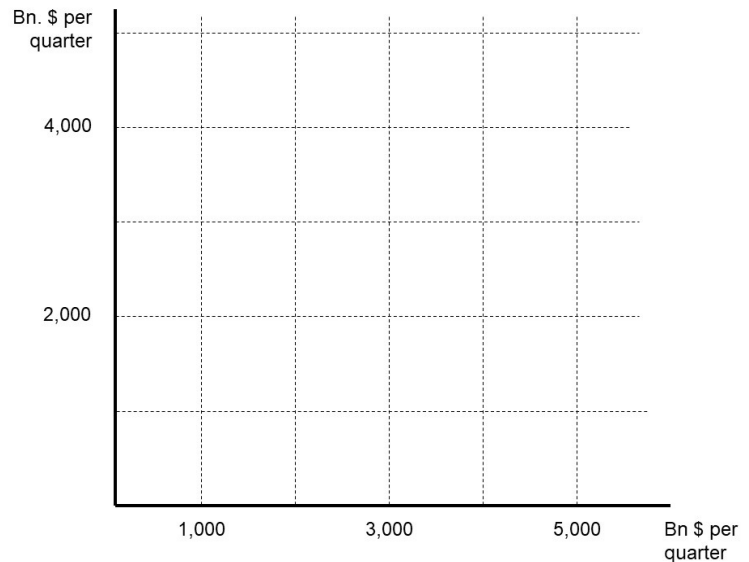
Suppose the following equations describe a simple economy. All amounts are billions of \$ per quarter.

Consumption: $C = 100 + 0.80YD$
 Investment: $I = 500$
 Government: $G = 300$
 Exports: $EX = 450$
 Imports: $IM = 350$

Transfer Payments to the Public: $TR = 800$
 Tax Payments to the Government: $TA = 1,300$

- a. What is the value of equilibrium income in this economy? Be sure to include the units in your answer. Attach your work or no credit.

- b. Carefully graph planned Aggregate Expenditure (aggregate demand) as a function of income (Y). Label your axes to show what is being measured in billions of \$ on each axis. Show the equilibrium level of output and income in your graph.



- c. Housing prices drop, reducing household wealth. Millions of families can no longer obtain credit through home equity lines of credit (HELOC). Without HELOCs, households cannot spend as much money on consumer goods & services. These wealth and credit effects cause consumption to drop by \$200 billion. Graph the new planned Aggregate Expenditure as a function of income (Y). Show the new equilibrium level of annual output and income in your graph.

Calculate the new equilibrium level of output and income and write the value in the box at the right. Attach your work or no points.

- d. What is the value of the investment spending multiplier ($\Delta Y/\Delta I$) for this economy? Attach your work or no points.

6. (2 points total) Multiplier

- a. Your friend, who is not taking Economics and therefore doesn't know economic language, doesn't understand why an initial \$400 billion annual decrease in construction spending makes income fall by more than \$400 billion per year. Tell your friend why an initial change in planned aggregate expenditure results in a much larger change in equilibrium income.

- b. In which case would the annual drop in GDP following the yearly drop in housing construction be greater:

- [case 1] Consumers have access to credit
- [case 2] Consumers do not have access to credit

Explain. Your explanation should include the concept "marginal propensity to consume."

7. (1 point total) Categorizing Expenditures

For each activity below, indicate in the box to its right where the activity would be recorded on the expenditure side of U.S. GDP accounting. Give a brief (one phrase) explanation of your answer. The choices are "C" (consumption), "I" (investment), "G" (government spending), "EX" (exports), "IM" (imports), and "not recorded".

- a. A fire at the Chevron refinery in Richmond, CA causes \$150 million in damage

- b. The City of Richmond hires local toxic-clean-up crews to remove toxins from city-owned playgrounds following the Chevron refinery fire

- c. Restaurant owners in Richmond pay local toxic-clean-up crews to remove toxins from their outdoor seating

- d. Restaurant owners in Richmond purchase new outdoor seating that was manufactured in England