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First Prelim Makeup  
ECON 1120 – Professor Steven Kyle  
October 27, 2008

Section Number:

**PART I: Multiple Choice. 10 points (each question is worth ½ point).**

1. Which of the following statements is *false*?
  - a) A change in consumer preferences causes a shift of the demand curve.
  - b) If an economy uses its resources efficiently, it operates on its production possibility frontier.
  - c) A change in the price of good X causes a movement along the supply curve of good X.
  - d) The price of good Y is negatively related to the opportunity cost of producing good Y.

Answer: D

2. The government spending multiplier shows
  - a) The effect of a \$1 increase in government spending on equilibrium output.
  - b) The effect of a \$1 increase in equilibrium output on government spending.
  - c) The effect of a \$1 increase in consumption on government spending.
  - d) The effect of a \$1 increase in taxes on government spending.

Answer: A

3. If the Fed sells bonds to the public at the same time taxes are increased, then the interest rate will
  - a) Go up
  - b) Go down
  - c) Stay the same
  - d) Could go up or down

Answer: D

4. Suppose coffee and tea are substitutes. What can we conclude with certainty?
  - a) An increase in the price of coffee will cause an increase in the demand for tea.
  - b) An increase in the price of coffee will cause an increase in the supply of tea.
  - c) An increase in the price of coffee will have no effect on the market for tea.
  - d) Both A and B are true.

Answer: A

5. What are the likely consequences of New York City's rent control laws?
  - a) The quantity of rentals demanded in New York City is smaller than the quantity of rentals supplied.
  - b) At the rental rate determined by the laws, the quantity of rentals demanded is exactly equal to the quantity of rentals supplied.

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- c) The quantity of rentals demanded is greater than the quantity of rentals supplied.
- d) The rental rate determined by law is above the equilibrium rate.

Answer: C

6. Suppose the CPI has increased by 50% since 1990, while nominal wages have increased by 40%. What can we conclude?
- a) Real wages have decreased by approximately 10%.
  - b) Real wages have increased by approximately 10%.
  - c) Real wages have stayed constant.
  - d) People are now saving less than in 1990.

Answer: A.

7. Suppose an economy experiences simultaneous deflation and increase in the nominal GDP. What happens to the real GDP of this economy?
- a) Stays the same
  - b) Goes up
  - c) Goes down
  - d) Could go up or down

Answer: B

8. Suppose the money supply is currently \$200 billion, the reserve ratio requirement is 5% and the discount rate is 4%. The Fed buys \$5 billion worth of bonds from the public. What is the resulting new level of the money supply?
- a) \$100 billion
  - b) \$200 billion
  - c) \$300 billion
  - d) \$250 billion

Answer: C

9. When the Fed lowers the discount rate, we would expect equilibrium GDP to
- a) Go up
  - b) Go down
  - c) Stay the same
  - d) Could go either way

Answer: A

10. Suppose the government simultaneously increases its spending by \$100, and increases taxes by \$100. What is the resulting effect on equilibrium output?
- a) Equilibrium output increases by \$100
  - b) Equilibrium output decreases by \$100

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- c) Equilibrium output stays the same.
- d) We cannot answer this question without knowing the values of the government spending and tax multipliers.

Answer: A

11. Suppose that the consumption function is given by  $C = .5Y + 150$ . Government spending is zero. If taxes increase by \$100 billion, then equilibrium output
- a) Stays the same.
  - b) Decreases by \$100 billion
  - c) Decreases by \$50 billion
  - d) Increases by \$150 billion

Answer: B

12. Suppose government spending and taxes decrease by the same amount. What is the resulting effect on the economy?
- a) Equilibrium output goes down, money demand decreases, the interest rate increases and planned investment decreases.
  - b) Equilibrium output goes up, money demand decreases, the interest rate increases and planned investment decreases.
  - c) Equilibrium output goes down, money demand increases, the interest rate increases and planned investment goes down.
  - d) Equilibrium output goes down, money demand decreases, the interest rate decreases and planned investment increases.

Answer: D

13. Suppose the Fed buys bonds from the public and increases the discount rate. What happens to the equilibrium interest rate in the economy as a result?
- a) Increases
  - b) Decreases
  - c) Stays the same
  - d) Increases or decreases, depending on the relative size of the two interventions.

Answer: D.

14. Suppose the government and the Fed cooperate to increase equilibrium output in the economy while keeping the interest rate approximately constant. Which policy mix would you recommend they implement?
- a) Expansionary monetary and expansionary fiscal policy.
  - b) Contractionary monetary and expansionary fiscal policy.
  - c) Expansionary monetary and contractionary fiscal policy.
  - d) Contractionary monetary and contractionary fiscal policy.

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Answer: A.

15. Suppose the demand curve for economics textbooks is horizontal. Then the price elasticity of demand for economics textbooks is
- a) Zero
  - b) Infinity
  - c) Equal to 1
  - d) Is between 0 and 1

Answer: B

16. Suppose a Japanese company builds a new factory in the United States in 2008. Which of the following statements is true?
- a) The U.S.'s 2008 GDP increases.
  - b) The U.S.'s 2008 GNP increases.
  - c) The U.S.'s 2008 GDP and GNP are not affected.
  - d) Japan's 2008 GDP increases.

Answer: A.

17. Suppose the economy falls into a recession and the Fed decides to increase the money supply. What is the combined effect on planned investment?
- a) Planned investment increases.
  - b) Planned investment decreases.
  - c) Planned investment does not change.
  - d) Planned investment could increase or decrease.

Answer: A.

18. According to the leakages/injections approach,
- a) The government must run a balanced budget.
  - b) Leakages are the sum of savings, taxes and exports.
  - c) Injections are the sum of government spending, investment and exports.
  - d) Taxes must exceed government spending.

Answer: C

19. In a closed private economy, what must be true in equilibrium according to the leakages/injections approach?
- a) Exports must exceed imports.

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- b) Government spending must exceed taxes.
- c) Saving must equal investment.
- d) Taxes must exceed exports.

Answer: C

20. Suppose the Treasury announces that it will increase the interest paid on newly issued bonds starting tomorrow. What does this imply about the price of bonds that are already issued as of today?
- a) The price of existing bonds decreases.
  - b) The price of existing bonds increases.
  - c) The interest paid on tomorrow's bonds has no implications for the price on already existing bonds.
  - d) The price of existing bonds might increase or decrease, depending on the quantity of newly issued bonds.

Answer: A

**PART II: Short Answer. 10 points (each question is worth 2 points).**

**Answer each question and draw a graph if requested. You must show your work to receive full credit.**

1. List and briefly describe the tools the government can use to conduct fiscal policy.

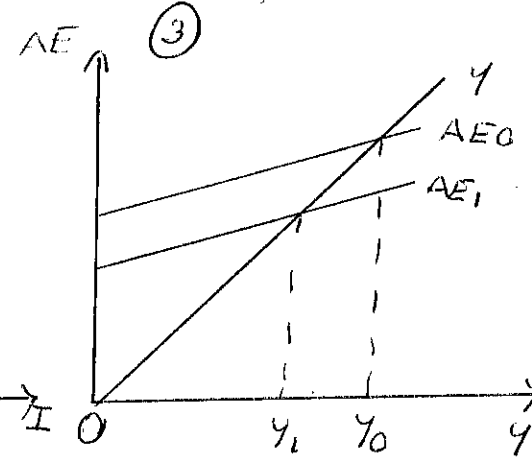
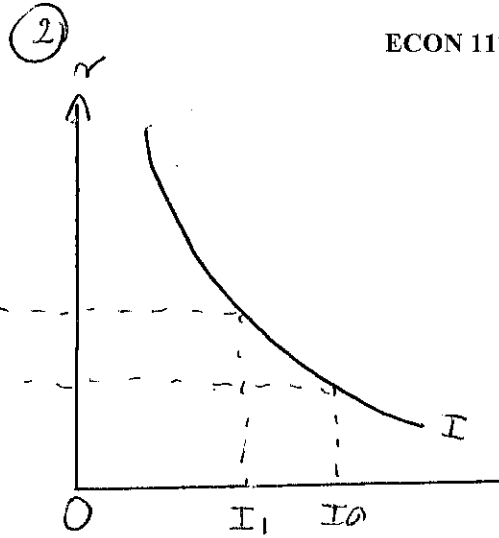
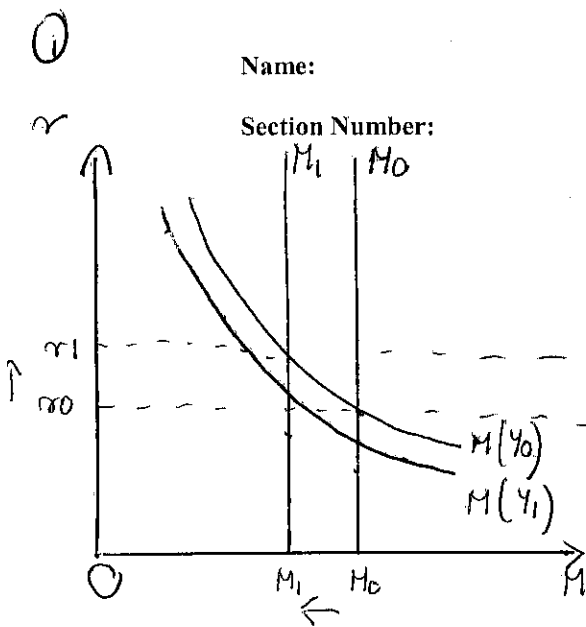
*The government can either manipulate government spending or taxes to conduct fiscal policy. Expansionary fiscal policy can be implemented by raising government spending or lowering taxes. Contractionary fiscal policy is when the government lowers spending or increases taxes.*

2. Suppose the Fed decides to sell bonds to the public. Using graphs, analyze the effects of this decision in the money and good markets. Make sure to discuss the effects on the equilibrium level of output, the interest rate and the amount of money in circulation.

*Selling bonds to the public decreases the money supply. The money supply shifts to the left, increasing the equilibrium interest rate. This causes private investment to fall, and the aggregate expenditure curve to shift down. Equilibrium output falls, shifting the money demand curve to the left. The interest rate falls as a result. The combined effect is such that equilibrium output falls, the interest rate increases and the amount of money in circulation falls.*

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3. Suppose the consumption function is given by  $C = 200 + .8Y$ . The government increases its spending  $G$  by \$200 billion and lowers taxes  $T$  by \$250 billion. By how much does equilibrium consumption  $C$  change?

*From the consumption function, we know that the marginal propensity to consume MPC is .8. Therefore, the government spending multiplier is  $1/(1-MPC) = 1/.2 = 5$ . The tax multiplier is  $-MPC/(1-MPC) = -.8/.2 = -4$ . Then the \$200 billion increase in  $G$  raises equilibrium output by \$1,000 billion. The \$250 decrease in taxes increases equilibrium output by \$1,000 billion. The combined effect is a \$2,000 billion increase in equilibrium output. Since the MPC is .8, equilibrium  $C$  increases by \$1,600 billion.*

4. Explain how manipulating the Reserve Ratio Requirement (RRR) works as a monetary policy tool. Make sure to explain how the Fed's decision to change this ratio affects the amount of money in circulation.

*The RRR is the ratio of all liabilities that banks must hold in reserve with the Fed. When the Fed lowers the RRR, banks now have to hold a lower ratio of all liabilities (loans) with the Fed. Suppose a bank has \$10 million in reserve with the Fed and the initial RRR is 10%. This means that the bank is allowed to lend \$100 million to customers. Now if the RRR is lowered to 5%, the bank still has the \$10 million in reserve with the Fed, but can now lend \$200 million to its customers. As a result of lowering the RRR by 5%, the Fed has increased the money supply by \$100 million.*

5. Describe the balanced budget multiplier in the context of expansionary fiscal policy. Make sure to discuss the definition of the balanced budget multiplier and what it implies about changes in equilibrium output in this context.

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*The balanced budget multiplier is equal to 1. In the context of expansionary fiscal policy, it implies that a \$100 million increase in government spending and a \$100 million increase in taxes causes equilibrium output to increase by exactly \$100 million. In general, the increase in equilibrium output is always equal to the amount by which government spending and taxes increase.*

**PART III: Newspaper Analysis. 10 points (each question is worth 5 points).**

**Answer each question and draw a graph if requested. You must show your work to receive full credit.**

- 1 Read the following excerpt from an article that appeared in the Wall Street Journal on September 10, 2008:

**Budget Deficit Likely Doubled for Fiscal '08**

“The Congressional Budget Office said the U.S. budget deficit for fiscal 2008 -- \$407 billion -- will be more than double the deficit for 2007, hit by the wars and a weak economy, and predicted it is likely to rise further in fiscal 2009. ...The agency foresees an increase to \$438 billion by fiscal 2009, which begins Oct. 1, with the government takeover of Fannie Mae and Freddie Mac further complicating budget projections. The fiscal 2008 budget deficit will rise to 2.9% of gross domestic product this year, according to the agency, up from 1.2% of GDP in 2007. The fiscal 2007 deficit was \$161 billion.”

- 1 point
- 1.1. Define the budget deficit in terms of government spending  $G$  and taxes  $T$ .

*The budget deficit is defined as  $G-T$ , i.e. the difference between the government's expenses  $G$  and its income  $T$ .*

- 2 points
- 2.1. Is it necessary to have a balanced budget in order to ensure equilibrium in the money and goods markets? Explain.

*It is not necessary for the budget to be balanced – using the leakages/injections approach, the only restriction equilibrium imposes is that the sum of saving, taxes and imports must equal the sum of government spending, investment and exports.*

- 2 POINTS
- 1.3 Suppose the government decides to borrow money to finance its new expenditures. How can the government borrow money from the public? What does this imply for private investment?

*The government borrows from the public by issuing Treasury bonds. Issuing Treasury bonds increases the equilibrium interest rate, thereby crowding out private investment.*

2. Read the following excerpt from an article which appeared in the New York Times on October 20, 2008:

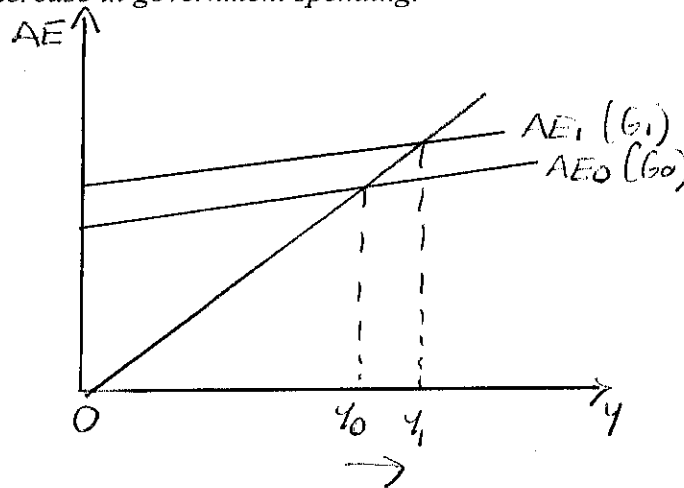
**Bernanke Offers Support for Stimulus Package**

“The chairman of the Federal Reserve, Ben S. Bernanke, said on Monday that he supported a second round of additional spending measures to help stimulate the economy... the Fed chairman said Congress should try to develop a plan that would have its maximum impact when the economy would probably be at its weakest. Many if not most private forecasters contend that the economy has already entered a recession, which would seem to argue for measures that would bolster overall spending as soon as possible.”

*1 POINT*

- 2.1. Graphically describe how a rise in government spending can directly increase equilibrium output (assume that taxes do not change). How does the rise in equilibrium output compare to the initial rise in government spending  $G$ ?

*A rise in government spending  $G$  increases aggregate expenditure and shifts the AE curve up. As a result, equilibrium output  $Y$  increases. The change in equilibrium output is greater than the increase in government spending.*

*2 POINTS*

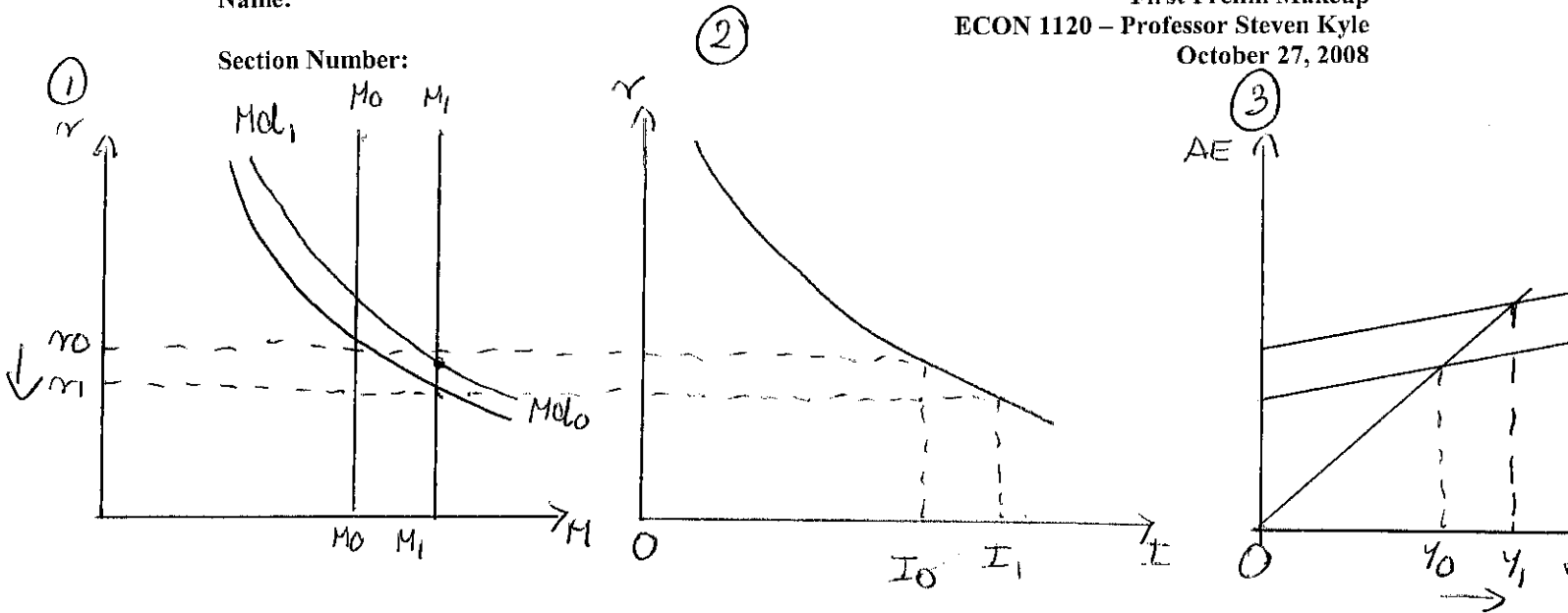
- 2.2. Suppose Bernanke decides that the Fed should cooperate with the government in trying to increase equilibrium output. If the goal is to stimulate the economy, what should the Fed decide to do about the interest rate at its next meeting? Graphically describe the effect of the Fed's expansionary policy on the money and goods markets.

*The Fed should decide to lower the interest rate by increasing the money supply. As a result, the equilibrium interest rate will decrease, private investment will increase, and the aggregate expenditure curve shifts up. Equilibrium output increases, shifting out the money demand curve and raising the interest rate. The overall effect of this monetary intervention is a rise in the money supply, a fall in the interest rate and an increase in equilibrium output.*



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2 POINTS

- 2.3 What is the combined effect of the government's decision to increase its spending  $G$  and the Fed's decision to stimulate the economy? Discuss the results with respect to 1) the interest rate; 2) the equilibrium level of output; 3) consumption; and 4) investment (it is sufficient to simply state what the resulting changes are).

*As a result of this expansionary policy mix, the following will occur: 1) the resulting interest rate can be higher or lower than the initial rate; 2) the equilibrium level of output is higher than before; 3) consumption increases; and 4) the effect on investment is ambiguous.*