

**Econ 1120 – Spring 2010**

**PRELIM I**

PROF. STEVE KYLE

March 4, 2010

**WRITE YOUR NAME ON EACH BLUEBOOK**

**WRITE YOUR TA NAME ON EACH BLUEBOOK**

**TA NAMES:**

Julia (Wednesday AM)

JooYeon (Monday AM)

Jeremy (Tuesday PM)

Xinli (Thursday AM-PM)

Ying (Wednesday AM)

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**INSTRUCTIONS:**

**There are three sections in this exam:**

- Part I: 20 multiple choice questions (0.5 point each)
- Part II: 3 short questions (10 points each)
- Part III: 1 essay question (10 points)

**ANSWER ALL QUESTIONS. TOTAL POINTS = 50. TOTAL TIME = 90 minutes**

**HINTS:**

- Read all questions carefully.
- Write legibly and remember to label all graphs and axes in diagrams.

**NO CELL PHONES.**

**NO CALCULATORS.**

**NO BOOKS. NO NOTES. NO HELP SHEETS.**

**NO TALKING TO EACH OTHER.**

**GOOD LUCK!**

## PART I

*Multiple Choice Questions (20 Questions, each worth 0.5 point)*

1. Fred Flugelman quit work to go back to school and get a Master's Degree in Engineering. After graduation he is only able to find part time work at a McDonalds for the first two years. He then finds a full time job once the economy picks up. During his two years at McDonalds:

- A) Fred was structurally unemployed
- B) Fred was frictionally unemployed
- C) Fred was cyclically unemployed
- D) Fred was not unemployed*
- E) Fred was a discouraged worker

2. The leader of Atlantis hires you as an economic consultant. He is concerned that the output level in Atlantis is too low. He feels that it is necessary to increase output by \$200 billion. He tells you that the MPC in Atlantis is 0.8. Which of the following would be the best advice to give to the Atlantis president?

- A) Decrease taxes in Atlantis by \$40 billion
- B) Decrease taxes in Atlantis by \$50 billion*
- C) Increase government spending in Atlantis by \$50 billion
- D) Increase government spending in Atlantis by \$160 billion
- E) Increase government spending in Atlantis by \$140 billion

3. Suppose that the consumer price index rises from 100 to 200. From this information we may conclude that

- A) Each person's real income is cut in half.
- B) Consumer incomes are doubled.
- C) The prices in an average consumer's market basket are doubled.*
- D) All consumer goods prices are doubled.
- E) All prices in the economy are doubled.

4. In an economy with no taxes and no international trade, if the marginal propensity to consume is 0.8, which of the following is true?

- A) When consumption increases by \$5, investment increases by a maximum of \$1.
- B) When consumption increases by \$5, savings increase by a maximum of \$1.
- C) When investment increases by \$1, income increases by a maximum of \$5.*
- D) When investment increases by \$1, consumption increases by a maximum of \$5.
- E) When income increases by \$1, investment increases by a maximum of \$5.

5. The “money multiplier” can be determined based on
- A) the marginal propensity to consume
  - B) the marginal propensity to save
  - C) the balanced budget multiplier
  - D) required reserve ratio*
  - E) any of the above
6. Which one of the following topics is predominantly a macroeconomic question?
- A) Interest rates on certificates of deposit at the Cornell Federal Credit Union relative to interest rates on Ithaca municipal bonds.
  - B) Unemployment among economics professors.
  - C) The price on Fords Motors stock relative to the price of IBM stock.
  - D) Total consumption spending by the household sector.*
  - E) Expected lifetime return for attending Cornell University.
7. Which one of the following is least likely to cause production possibilities frontier to shift outwards and to the right?
- A) Investment in human capital
  - B) An increase in the stock of capital
  - C) An improvement in technologies
  - D) Migration of working adults into the country
  - E) A reduction in unemployment rate from 5% to 3%*
8. Which of the following would NOT be counted as “Investment” in the national income of GDP of the U.S in 2010?
- A) General Motors building a factory in 2010
  - B) Cars manufactured in 2010 to increase General Motors’ inventories of cars
  - C) New residential housing structures built in 2010
  - D) The purchase of a share of stock in General Motors by an employee of General Motors in 2010*
  - E) Walmart buying a fleet of trucks in 2010
9. Which of the following will increase the demand for Dell laptops?
- A) Several reports of serious Dell laptop battery explosions
  - B) A decrease in the price of HP laptops
  - C) A decrease in the price of Dell laptops
  - D) A major promotion by Dell giving people free printer with any laptop purchase*
  - E) A reduction in the price Dell pays its suppliers for softwares installed into the laptops

10. The period from 1929 to 1939 in the U.S economy was termed a “depression” by economists because the economy was experiencing persistent:

- A) high levels of unemployment together with high levels of inflation
- B) low levels of unemployment together with low levels of inflation
- C) high levels of unemployment together with low levels of national output*
- D) low levels of unemployment together with low levels of national output
- E) loss of jobs due to European growth

11. Which of the following are examples of intermediate goods? (You may need to circle more than one alternative to get full credit)

- A) Recycled steel purchased by a steel manufacturing unit*
- B) A computer purchased by a professor to use in classroom
- C) A set of screwdrivers purchased by a small firm
- D) An automobile purchased by a package delivery company
- E) Flour bought by Mrs Anderson to make her son’s birthday cake

12. Suppose the consumption function of the economy of Wonderland is given by  $C=0.6Y+250$ . Government spending is zero. If taxes increase by \$100 billion, then the equilibrium output

- A) Stays the same
- B) Decreases by \$100 billion
- C) Decreases by \$150 billion*
- D) Increases by \$150 billion
- E) Increases by \$100 billion

13. According to the leakages/injections approach,

- A) The government must run a balanced budget
- B) Leakages are the sum of savings and investment
- C) Injections are the sum of government spending and investment*
- D) Taxes must exceed government spending
- E) None of the above

14. If aggregate output is greater than planned aggregate expenditure, then which of the following adjustments to equilibrium will occur:

- A) There will be an unplanned inventory decrease and firms will reduce production
- B) There will be an unplanned inventory increase and firms will reduce production*
- C) There will be an unplanned inventory increase and firms will increase production
- D) There will be an unplanned inventory decrease and firms will increase production
- E) None of the above

15. Whenever there is an increase in autonomous consumption spending, there will be
- A) *an upward shift in the planned aggregate expenditure line causing equilibrium GDP to rise.*
  - B) an upward shift in the planned aggregate expenditure line, but no change in equilibrium GDP
  - C) no change in the planned aggregate expenditure line, but equilibrium GDP will rise
  - D) an upward shift in the planned aggregate expenditure line causing equilibrium GDP to fall
  - E) no change in planned aggregate expenditure line or equilibrium GDP
16. Which of the following actions by the Fed will result in an increase in money supply?
- A) Decreasing the amount of loans made to commercial bank
  - B) Selling government securities in the open market
  - C) *Decreasing reserve requirements*
  - D) Increasing discount rate
  - E) Printing less money
17. A feature of a stock variable and a flow variable is that
- A) *A stock is a quantity that exists at a point in time and a flow is a quantity per unit of time*
  - B) An example of a stock variable would be real GDP and an example of a flow variable would be consumption spending
  - C) A stock would only measure the value of goods and services produced in a country during a given time
  - D) A stock is a quantity per unit time, and a flow is a quantity that exists at a point in time
  - E) None of the above
18. If inflation is greater than the interest rate, then the real interest rate is
- A) positive
  - B) *negative*
  - C) zero
  - D) either positive or negative
  - E) None of the above
19. If the government expenditure multiplier is 10, then the tax multiplier is
- A) 9
  - B) *-9*
  - C) 10

- D) cannot be determined since MPS is not given
- E) none of the above

20. Which one is NOT true about the production possibilities frontier?

- A) It is the maximum amount of goods and services that can be produced with a given quantity of resources and technology
- B) When the technology of producing one good improves, the frontier moves outwards
- C) When the country has poor management practices the economy may be operating at a point outside the frontier*
- D) Production possibility frontier bowing outwards imply an increase in the opportunity costs as production is increasingly specialized in one good.
- E) A production possibilities frontier can sometimes be linear

## PART II

*Short Answer Questions. (30 points total, 10 for points each question). Answer all questions and draw graphs wherever asked. You must show your work properly to receive full credit.*

- 1) If it has been determined that the aggregate consumption function of the country is  $C = 80 + (0.9)(Y-T)$ , what can you say about households' tendency to consume, what can you say about households' tendency to save?

Assume that the government expenditure is given by  $G=29$ , taxes by  $T=10$  and Investment  $I=0$ .

Suppose the government wanted to increase the country's GDP by \$600 billion. What two tools can it use to do that? Using only the first tool you listed, how large of a change will the government need to effect to achieve its target of \$600 billion? Using only the second tool you listed, how large of a change will the government need to effect to achieve it target of \$600 billion?

*Hints: Be sure to mention the direction of change in each case of the policy tool you are specifying. Also show all the computations. Just writing the number or just drawing graphs will not give you full credit.*

*Households' tendency to consume is summarized by the marginal propensity to consume (MPC) which is given by 0.9 from the consumption function.*

*Since we know that  $MPC+MPS=1$ , the households' tendency to save is given by  $MPS=1-MPC=1-0.9=0.1$ .*

*If the government wants to increase the country's GDP by \$600 billion, then it can adopt one of the following tools:*

- i) Decrease taxes  $T$*
- ii) Increase government expenditure  $G$*

*If the government decides to decrease taxes, then to increase GDP by \$600 billion, it must cut taxes by \$66.66 billion = (\$600 billion/ tax multiplier)*

*where tax multiplier= $(-mpc/mps)$*

*If the government decides to increase  $G$ , then to increase GDP by \$600 billion, it must increase  $G$  by \$60 billion = ( $\$600 \text{ billion}/\text{Government multiplier}$ ) where  $G\text{-multiplier}=(1/mps)$ .*

- 2) Suppose in a mythical economy named Mythlandia, the government decides to raise the required reserve ratio for banks to 100%.
- a) Would this change tend to stimulate the economy? Why?

*By raising the RRR to 100%, the government effectively tightens the monetary policy, which means that now less money is in circulation in the economy.*

*Why? At the RRR=100% banks will need \$100 in reserves to back their \$100 in deposits. Thus the banks now have no money to lend, and are forced to reduce their deposits.*

*Thus money supply decreases in the economy. This change will not positively stimulate the economy, since there is less money in circulation. Therefore people's spending power falls, and hence aggregate expenditure will fall, which leads to a fall in equilibrium income (GDP).*

- b) How much would the money supply expand if the banking system received an additional \$100 billion of deposits?

*With \$100 billion of deposits and a required reserve ratio of 100%, the bank must have reserves of \$100 billion. The bank therefore cannot lend anything because the reserve requirement is 100%. Thus the bank has no excess reserves and thus cannot make any loans, and it is said to be loaned up. Therefore money supply does not expand.*

- 3) What three tools can the Federal Reserve use to influence the money supply? Describe each briefly being sure to indicate which is most commonly used and how each works in practice.

*The three tools that the Federal Reserve uses to influence money supply are*



- i) *Reserve ratio – the mechanism is described in the answer to short question part (a)*
  
- ii) *Discount rate – It is the rate of interest that the commercial banks pay when they borrow money from the FED. The higher the discount rate, the higher the cost of borrowing and less borrowing banks will be able to do. If the Fed wants to curtail the growth of money supply, it will raise the discount rate and this discourages banks from borrowing from it, restricting the growth of reserves and deposits.*
  
- iii) *Open market operations – This is the most commonly used tools for controlling money supply. By this process, the FED buys and sells U.S government securities in the open market. When the Fed purchases a security, it pays for it by writing a check that when cleared, expands the quantity of reserves in the economy, increasing the money supply. When the Fed sells a bond, private citizens or institutions pay for it with a check that when cleared reduces the quantity of reserves in the economy.*

### PART III

*Newspaper Article question (10 points). Draw graph whenever asked. You must show your work to receive full points.*

Read the following excerpt from the New York Times article by David Leonhardt, “Broader Measure of U.S. Unemployment Stands at 17.5%”, and answer the following questions.

*For all the pain caused by the Great Recession, the job market still was not as bad shape as it had been during the depths of the early 1980s recession – until now.*

*With the release of the jobs report on Friday, the broadest measure of unemployment and underemployment tracked by the Labor Department has reached its highest level in decades. If statistics went back so far, the measure would almost certainly be at its highest level since the Great Depression.*

Now answer the following questions:

- 1) The article states that the broader measure of U.S. unemployment stood at 17.5% in October 2009, while the official jobless rate was only 10.2%. Why would the official unemployment rate understate the number of people who are actually without jobs? What is a better indicator of the economic performance?

*This broad measure includes the officially unemployed, who have looked for work in the last four weeks, as well as discouraged workers and millions of part-time workers who want to be working full time. The broadest measure of unemployment and underemployment is a better indicator of the economic performance since by*

*including discouraged and part-time workers it more realistically captures the extent of job loss and of decrease in individuals' incomes.*

- 2) Explain what is meant by “discouraged worker” effect. Is the share of discouraged workers in this recession higher or lower than the 1980 recession?

*Discouraged worker is a worker who want to work but cannot find jobs grow discouraged and stop looking. They no longer look for jobs and therefore move out of the labor force.*

*The share of discouraged workers were lower in this recession as compared to the 1980 recession.*

- 3) What are the social and economic consequences of unemployment? What steps can the federal government take to slow down job losses during recession? What steps have been taken in the USA during this recession?

*The costs of unemployment are neither evenly distributed across the population nor easily quantified. The poor and people who lose their jobs suffer the most. However, even those who keep their jobs may find themselves working part-time or for less money. In addition to economic hardship, prolonged unemployment may also bring with it social and personal ills: anxiety, depression, and deterioration of physical and psychological health, drug abuse, and suicide. The federal government can respond by introducing fiscal stimulus and cutting interest rates.*

*During this recession, President Obama signed a bill to extend unemployment benefits and a tax credit for homebuyers. The Federal Reserve announced that it would leave its benchmark interest at zero.*