ECONOMICS 110/112*

Assignment #6/#3

2011/2012

Due Dates and Notes:

- ***DUE:*** By ***Friday March 23, 2:00 PM.*** Completed assignments should be placed in the slot marked for your section in the white assignment collection box on the 2nd floor of Dunning Hall. Late assignments will not be accepted.
- Use the ***Cover Page*** when submitting assignments.
- ***Group Work:*** Maximum ***four*** per group, all students must be registered in the ***same section of the same course***. Names must be in ***alphabetical order*** on the cover page.
- Graded work will be available for pick-up beginning on the afternoon of Friday April 6 in the Econ Distribution Center, Dunning Hall Room 334. You will require your ***student card***.
- This assignment covers material from Chapters 24-29 of the text.

True, False, or Uncertain [48 marks - 6 marks each]

Explain why each of the following statements is True, False, or Uncertain according to economic principles. **Use diagrams where appropriate.** Unsupported answers will receive no marks. It is the explanation that is important.

A6-1. Suppose an economy originally in long run equilibrium experiences a positive aggregate demand shock. Without government intervention, the economy will never return to long run equilibrium.

A6-2. Over the next several decades, the labour force in Japan is predicted to shrink as the population ages. If there is no change in labour productivity over this time period, then long run GDP can be predicted to decline.

A6-3. If an aggregate production function exhibits constant returns to scale then a doubling of the labour force leads to a doubling of aggregate output.

A6-4. If the public holds all of their money in the bank and the target (desired) reserve ratio of commercial banks is 10%, then an increase in reserves of $100 leads to an increase in the money supply of $90 in the second round of money multiplier process, and an increase in the money supply of $1000 once the money multiplier process is concluded.

A6-5. The increased availability of credit cards over the last 20 years has resulted in an increase in the money supply.

A6-6. Suppose a $1000 bond pays annual “coupon interest” equal to 10% and matures in two years time. If the yield on bonds with similar risk characteristics is 3%, the price of this bond today is greater than $1000.

A6-7. In the long-run, the money supply is neutral with respect to (does not affect) real GDP.

A6-8. A given increase in the money supply is more effective at shifting the aggregate demand curve the more interest rate responsive (elastic) is the money demand curve.

Problems [52 marks - marks for each part as shown]

A6-9. Suppose the long-run investment demand and *private* saving supply curves in the market for loanable funds are given by the following equations:

$$I = 2000 - 100r \qquad S = 500 + 100r$$

where r represents the real interest rate in percentage points (eg. 10% is represented by 10), and quantities are in billions of dollars. Assume a closed economy and that initially the government is running a balanced budget (ie. government saving initially equals 0).

(a) What is the equation for national saving? Calculate the equilibrium interest rate, aggregate level of investment in the economy, and the aggregate level of national saving. Illustrate in a diagram. [5]

(b) Now suppose that firms revise downward their expectations of the future cash flows from investment projects. Explain why this would lead to a reduction in the demand for loanable funds. [5]

(c) Suppose the event described above results in demand being decreased by 200 at any interest rate. What is the new demand equation? Calculate the new equilibrium. Illustrate in your diagram. [5]

(d) Return to the original supply and demand conditions. Suppose that the government changes its policy so that in the long-run it will run deficits of 500. How does this affect the level of national saving? Calculate the new equilibrium. What is private saving in the new equilibrium? [5]

(e) Explain why the deficit described above might affect future economic growth in GDP, labour productivity, and GDP/capita. [6]

A6-10. Recently the Brazilian central bank decreased its target overnight interest rate. In doing so it is trying to decrease interest rates in the money market

(a) Explain why the central bank must be willing to increase the money supply to support lower interest rates in the money market. [Hint: Include a diagram of the money market in your answer.] [5]

(b) The central bank can change the money supply is through an open market operation. In this case, should it buy bonds from, or sell bonds to, the banking system? How would the transaction affect the amount of reserves in the banking system? How does the change in reserves lead to the required change in the money supply (measured by deposits in the banking system)? [5]

(c) Suppose we could treat the Brazilian economy as a closed one. What effect will the results of the policy have on investment, on aggregate expenditure? Include diagrams in your answer. [5]

(d) Similar to Canada, Brazil is an open economy. What additional effect will the policy have on aggregate expenditure? [5]

(e) How will aggregate demand be affected, whether we treat the economy as closed or open? [2]

(f) Under what conditions would this be a stabilizing policy? Explain. [4]