

18/20

Macroeconomics Mid-Term Test 2, April, 2011 Section 040

Business School, Algonquin College

15/15

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Student's name:-----

Instructions: The test is divided into two sections. A and B. In section A, do all the questions on the exam paper. Section B is multiple choice questions, answer them on the blue sheets given, using pencil only.

Q1. A closed economy has the following macroeconomic statistics in billions of dollars; Use them to answer the questions below

GDP=Y=\$670b, Consumption (C)=\$120b, Taxes (T) = \$160b and Government expenditure (G) = \$130b

a) What is the value of public savings, and what is the value of private savings? (2marks)

$S_{public} = T - G$
 $= 160B - 130B$
 $= 30B$

$S_{private} = Y - T - C$
 $= 670B - 160B - 120B$
 $= 390B$

b) What is the value of total investment in the country? (1 mark)

$AD = Y = C + G + I$
 $670 = 120 + 130 + I$
 $670 - 250 = I$

$I = 420B$

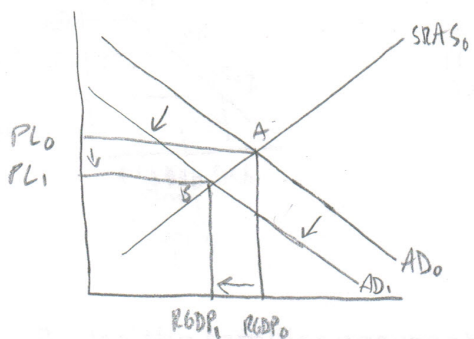
c) If the economy is opened up to trade such that the model becomes $Y = C + I + G + (X - M)$

Where X (exports) = \$30b and

M (imports) = \$20b, what will be the new National income (GDP)? (2marks)

$AD = Y = C + I + G + (X - M)$
 $= 120B + 420B + 130B + (30 - 20)$
 $= 680B$

Q2. A. Suppose Japan is in long-run macroeconomic equilibrium, and a sudden economic shock (earthquake, tsunami) hits the economy resulting in massive **contractionary gap (recession)**, using the aggregate demand / aggregate supply model illustrate to me what happens to the price level and real output in **the short run**. (3 marks)

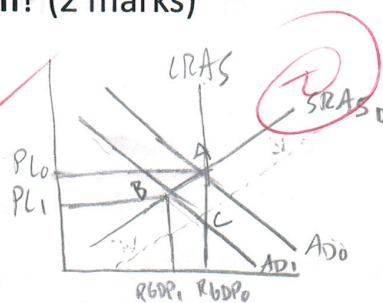


After the sudden shock, price levels will decrease along with a decrease in real output. Unemployment also drops causing less consumption ($\downarrow C$) & lack of business confidence ($\downarrow I$). Both of these factors shift the AD from ~~AD0~~ to AD1.

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B. If policy makers embark on "do-nothing policy" what would happen to the price level and real output in **the long-run**? (2 marks)

In the long run, price level would decrease even more while RGDP would return to LR equilibrium. As price level drops, real wages \uparrow so more people are willing to work for less \downarrow production costs and \uparrow SRAS ultimately shifting the SRAS to point C at LR equilibrium.

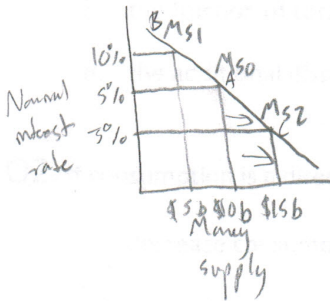


C. Suppose the Japanese government decides to act by stimulating the economy with \$300 billion, what will be the total income generated in the economy when all is said and done via the income **Multiplier process**. Assume a marginal propensity to consume (**mpc**) of Japan to be 0.7 (2 marks)

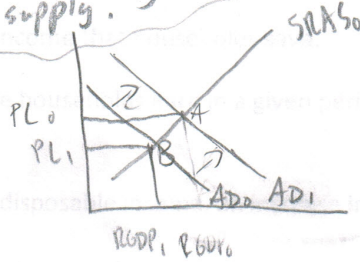
$$\begin{aligned}
 MP &= (\text{initial investment}) \left(\frac{1}{1 - mpc} \right) \\
 &= 300b \left(\frac{1}{1 - 0.7} \right) \\
 &= 1000b
 \end{aligned}$$

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Q3. A. Given the above economic situation in Japan i.e. the contractionary gap (recession), what would be the appropriate **open market operation** by the Bank of Japan to help stabilize the Japanese economy? (1 mark)



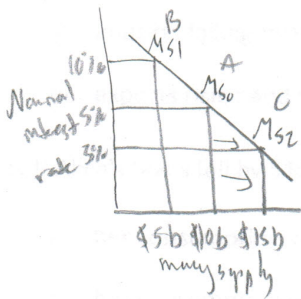
Buy back savings bonds to increase money supply.



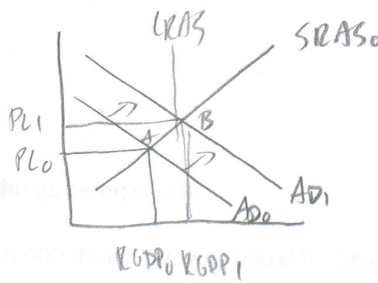
Japan is currently in a contractionary gap.

Bank of Japan will buy back bonds to increase money supply from point A → C. Lowering nominal interest rates private businesses will begin to invest (↑I) and the \$CAN will depreciate ultimately ↑(X-M). Both these factors will increase AD back to LR eq.

B. Use the familiar aggregate demand/aggregate supply model to illustrate (diagram) and to explain how the above (open market operation) monetary policy will work for the Japanese economy. (2 marks)



Increase money supply by buying bonds back.



AD shifts back to LR equilibrium A → B

Bank of Japan will buy back bonds to increase money supply from point A → C. Lowering nominal interest rates will induce private investment and will increase (↑I). With lower interest \$CAN will depreciate and (X-M) ↑. Both factors shift the AD from AD0 to AD1.

Multiple Choice: Answer using pencil and the blue sheet.

Q1 The marginal propensity to consume (*MPC*) is defined as:

- a. the additional consumption that results from one dollar increase in disposable income.
- b. the fraction of total disposable income that households spend on consumption.
- c. the fraction of total disposable income that households save.
- d. the additional disposable income households earn in a given period.

Q2. If consumption is a direct function of disposable income, an increase in personal taxes would:

- a. decrease consumption but not aggregate demand.
- b. increase consumption but not aggregate demand.
- c. decrease both consumption and aggregate demand.
- d. decrease net exports.

Q3. Which of the following will decrease aggregate demand?

- a. exports rising faster than imports
- b. exports falling faster than imports
- c. imports falling faster than exports
- d. exports rising and imports falling

Q4. If Alice's taxes fell by \$10,000, other things being equal:

- a. her consumption would fall by \$6,000 if her *APC* was equal to 0.6.
- b. her consumption would fall by \$6,000 if her *MPC* was equal to 0.6.
- c. her consumption would rise by \$6,000 if her *APC* was equal to 0.6.
- d. her consumption would rise by \$6,000 if her *MPC* was equal to 0.6.

Q5. Investment is affected by all but which one of the following factors?

- a. optimism
- b. the level of profits
- c. consumer spending
- d. expectations of long-term profit growth

Q6.

- I. The investment demand curve for the economy is downward sloping.
- II. The supply of national saving schedule for the economy is upward sloping.

- a. I and II are both true.
- b. I and II are both false.
- c. I is true and II is false.
- d. I is false and II is true.

Q7.

The LRAS will shift right when both _____ and _____ occur.

- a. an increase in the capital stock; a decrease in the natural resources that are available for production
- b. an advance in technology; a decrease in the amount of labour available for production
- c. an advance in technology; an increase in the capital stock
- d. a decrease in the capital stock; a decrease in the amount of labour available for production

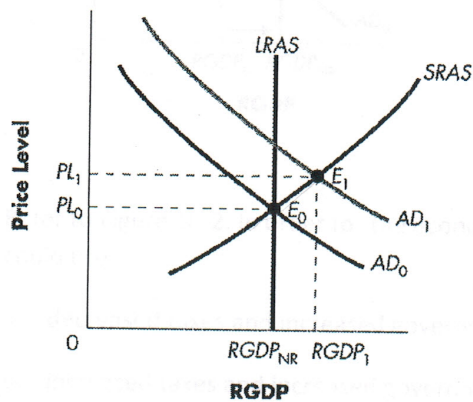
Q8. Cost-push inflation occurs when:

- a. the aggregate demand curve shifts upward at a faster rate than short-run aggregate supply.
- b. the short-run aggregate supply curve shifts upward while aggregate demand is fixed.
- c. the aggregate demand curve shifts downward and aggregate supply is fixed.
- d. the short-run aggregate supply curve shifts downward.

Q9. A recession could result from:

- a. a decrease in aggregate demand.
- b. an increase in long-run aggregate supply.
- c. an increase in aggregate demand.
- d. an increase in short-run aggregate supply.

Q10. Figure 9-2



Refer to Figure 9-2. A shift from AD_0 to AD_1 would indicate:

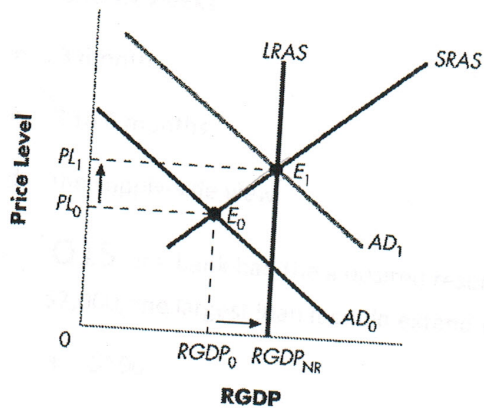
- a. increasing aggregate demand.
- b. increasing SRAS.
- c. decreasing real GDP.
- d. cost-push inflation.

Q11. Refer to Figure 9-2. If the economy is operating at $GRDP_1$ you would conclude that:

- a. this point is impossible to achieve.
- b. this point is possible and is permanent.
- c. this point is possible, but only temporarily.
- d. indicates that the natural rate of unemployment has increased.

Q12.

Figure 10-2



Refer to Figure 10-2. In order for the economy pictured above to get back to $RGDP_{NR}$, this economy could use:

- a. decreased taxes and increased government purchases.
- b. increased taxes and increased government purchases.
- c. decreased taxes and decreased government purchases.
- d. increased taxes and decreased government purchases.

Q13. If government policy makers were worried about the inflationary potential of the economy, which of the following would not be a correct fiscal policy change?

- a. Increase consumption taxes.
- b. Increase government purchases of goods and services.
- c. Reduce transfer payments.
- d. Increase the budget surplus.

Q14. The recognition lag suggests that it may take Statistics Canada _____ to identify the beginning of an economic downturn.

- a. 3 to six weeks
- b. 3 months
- c. 3 to 6 months
- d. the supply-side view

* Q15. If a bank had the a desired reserve ratio of 10 percent and excess reserves of \$2,000, the largest loan it could extend would be:

- a. \$200.
- b. \$1,800.
- c. \$2,000.
- d. \$20,000.

Q16. A bank's capital is:

- a. the value of all its assets, including loans.
- b. the value of all its assets, excluding loans.
- c. the value of its physical plant, including buildings, computers, and automatic teller machines.

C the difference between its assets and liabilities.

Q17. If a bank had demand deposits of \$50 million and it desired a 25 percent reserve ratio, it would hold how many reserves?

- a. \$50 million
- b. \$37.5 million
- c. \$25 million
- d. \$12.5 million

Q18. If many people were to suddenly deposit into their chequing accounts large sums of cash previously kept in their wallets, this would result in:

- a. a reduction in the money supply.
- b. a decrease in M1 but an increase M2+.
- c. an increase in interest rates.
- d. an increase in reserves of banks and therefore an increase in the money supply.

Q19. During a boom expansionary economy, public assistance payments and unemployment compensation payments automatically decrease while income taxes automatically increase. Which of the following best describes the effect of these changes on aggregate demand?

- a. Aggregate demand will be less than it would be without these automatic stabilizers.
- b. Aggregate demand will be the same as it was before the expansion.
- c. Aggregate demand will be greater than it was before the expansion.
- d. Both a) and c) accurately describe their effect.

Q20. The most important automatic stabilizer is:

- a. open market operations.
- b. the unemployment compensation system.
- c. the tax system.
- d. the welfare system.

The test is divided into two sections, A and B. In section A, you are asked to answer 10 multiple choice questions on the exam paper. Section B is multiple choice questions, answer them on the blue sheets given, using pencil only.

Q1. A closed economy has the following (in billions of dollars) variables:
GDP (Y) = \$570b, Consumption (C) = \$120b, Taxes (T) = \$150b and Government expenditure (G) = \$130b

a) What is the value of bank savings and what is the value of private savings?

b) What is the value of total income in the country?

c) The economy is closed, if the government had 10% more income, what would be the effect on GDP?

Where X represents the effect on GDP, Y represents the effect on national income, and Z represents the effect on total income.