

Concordia University
Department of Economics
ECON 203 Section 4U
Winter 2009

MIDTERM EXAMINATION AND ANSWERS

Name: _____
Student ID: _____
Mark: _____/50 marks

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Time Limit: 75 minutes

Part I. Multiple Choice Questions. Circle the best answers (10 marks).

1. Under the aggregate expenditure approach, Canada's Net Export Expenditure is around _____% of our GDP.
 - a. 10.
 - b. 20.
 - c. 30.
 - d. 40.
 - e. **None of the above (It is around 2%).**

2. Assuming a nominal GDP of \$2 billion and a GDP deflator of 180, real GDP must be
 - a. \$3.4 billion.
 - b. \$3 billion.
 - c. \$2 billion.
 - d. \$1.75 billion.
 - e. **None of the above (It is $\$2/180 \times 100 = \1.11 billion).**

3. In the years 2006 and 2007, the cyclical unemployment rates in Canada had been around
 - a. 9%.
 - b. 7%.
 - c. 5%.
 - d. 3%.
 - e. **0% (Actual unemployment rate around 7%, which is our natural rate. The 7% consists of structural, frictional and seasonal unemployment).**

4. If $Y < AE$, then inventory would
 - a. Increase and Y would increase.
 - b. Increase and Y would drop.
 - c. **Decrease and Y would increase (AE too large, inventory flies off the shelves, firms increase production).**
 - d. Decrease and Y would drop.
 - e. Decrease and Y would remain constant.

5. Which of the following best describes automatic built-in stabilizers in Canada?
 - a. The size of the autonomous goods market multiplier varies inversely with the level of GDP.
 - b. Income tax collections automatically fall as GDP rises.
 - c. **Income tax collections automatically fall as GDP falls.**
 - d. Government spending automatically rises as GDP falls (G is autonomous or constant).
 - e. Both c and d.

6. The aggregate demand curve is derived from
 - a. Summing all micro demand curves.
 - b. Wealth effects in consumption.
 - c. Price effects in net exports.
 - d. **b and c (Chapter 5 notes, page 1).**
 - e. All of the above.

7. If consumption (C) is \$30,000 when income is \$22,000, and the MPS is 0.2. An increase in Y causes C to rise to \$32,000. What is the new Y?
 - a. \$22,500
 - b. \$23,500
 - c. **\$24,500 ($\$30,000 = a + 0.8(\$22,000)$, so the consumer confidence is 12,400. $C = \$32,000 = 12,400 + 0.8(Y)$. So $Y = \$24,500$).**
 - d. \$25,500
 - e. None of the above.

8. The AD/AS model shows that if the price of oil drops, the economy will experience
 - a. A rise in the inflation rate and a drop in the unemployment rate.
 - b. A rise in the inflation rate and a rise in the unemployment rate.
 - c. **A drop in the inflation rate and a drop in the unemployment rate (AS shifts right, lower P and higher Y).**
 - d. A drop in the inflation rate and a rise in the unemployment rate.
 - e. A drop in the inflation rate and a constant unemployment rate.

9. According to Okun's law, if the unemployment rate is 9% and the natural rate U_n is 7%, then the actual Y must be
- 2% above the Y_p growth rate.
 - 2% below the Y_p growth rate.
 - 4% above the Y_p growth rate.
 - 4% below the Y_p growth rate ($\Delta U=2 = -0.5(\% \Delta Y - \% \Delta Y_p)$, so $\% \Delta Y - \% \Delta Y_p = -4\%$.)**
 - None of the above.
10. Since the LAS curve is vertical, and increase in consumer confidence in the short run will lead to
- A higher equilibrium price level and GDP in the long run.
 - A higher equilibrium price level and lower GDP in the long run.
 - A higher equilibrium price level and no change in GDP in the long run (AD rises, higher P, eventually higher wages, AS shifts left).**
 - A lower equilibrium price level and higher GDP level in the long run.
 - No change in the equilibrium price level or GDP level in the long run.

Part II: Answer all questions (Total=40 marks)

Question #1 GDP Approaches (Total=4 marks) from Lyryx.

Suppose there is an economy that produces only four goods in one year.
 Paper: \$8,000 Books: \$16,000 Toner: \$4,500 Envelopes: \$4,000

The production of books requires the following amount of intermediate goods:
 Paper: \$4,500 Toner: \$3,500

The production of envelopes requires the following amount of intermediate goods:
 Paper: \$2,000

- Find the total GDP for the economy (2 marks).
Ans: \$22,500
- Find the value of paper sold as a final good (1 mark).
Ans: \$1,500
- Find the value of toner sold as a final good (1 mark).
Ans: \$1,000

Question #2 Conceptual Questions (Total=6 marks)

- Explain how a country's trade deficits are related to its private and public net savings. What policies can be introduced to decrease such trade deficits? (3 marks).
Ans: Chapter 7 notes $\rightarrow NX=(S-I)+(T-G)$; Increase S, cut I, cut G, raise T.
- Discuss the difference between BB and SBB and which type of deficits is more worrisome (3 marks).
Ans: BB depends on actual Y ($BB=tY-G$), SBB depends on Y_p ($SBB=tY_p-G$); SBB more worrisome since BB deficits are more likely to be temporary if driven by temporary recessions. SBB deficits are due to rise in G and drop in T.

Question #3 Unemployment (Total=6 marks)

Suppose the population of Canada is 3,210. Of all adult Canadians, 2,575 were employed, 200 were unemployed, and 300 were not in the labour force.

- How many Canadians are under the age of 15? (2 marks)
Ans: Refer to the tree diagram in Chapter 4 \rightarrow There are 135 kids.
- What is the unemployment rate (in percentage)? (2 marks)
Ans: $(200/2775)*100=7.2\%$
- There had been some discussions in the U.S. that given the depleting reserves in old age securities and the longer average life expectancies of the population, perhaps the age of retirement should be increased to 70. Suppose Canada is considering if it should adopt this policy. Assume that 100 of these previously retired workers would now be looking for work. Find Canada's new unemployment rate (2 marks).
Ans: $(300/2875)*100=10.43\%$. Labour force rises by 100, and unemployment also rises by 100.

Question #4 AD/AS (Total=4 marks)

Consider the following excerpt from The Canadian Press:

Consumer confidence falls to weakest level since '82

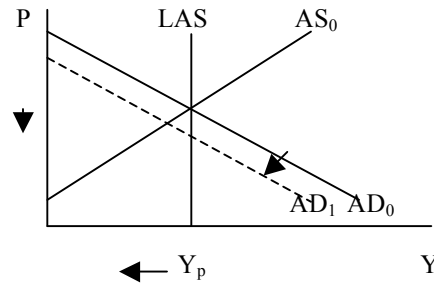
Updated Fri, Oct. 17 2008 11:03 AM ET, The Canadian Press

OTTAWA -- Consumer confidence has fallen to the lowest level in 26 years, according to the Conference Board of Canada.

The think-tank says its survey of 2,000 Canadians early this month showed a sharp drop in sentiment after three months of rising optimism.

- (i) **Based on the article above**, use the AD/AS/LAS diagram to demonstrate how the drop in consumer confidence would affect our Canadian economy. For simplicity, assume that before these changes the Canadian economy was in the short run and long run equilibrium. Discuss the effects on the inflation rate and the unemployment rate (2 marks).

Ans: AD shifts down, inflation rate lower but unemployment rate higher (since Y is lower).



- (ii) If you are working as an economist for the Department of Finance and your boss asks you to keep the actual unemployment rate at the natural rate. What two fiscal policy changes would you recommend? Explain (2 marks).

Ans: ↑ G, ↓ T since AD will rise as G ↑ and the tax cut will ↑ C.

- (iii) If your recommendations in (ii) are not implemented, discuss how the Canadian economy would eventually adjust in the long run (2 marks).

Ans: Since unemployment is higher, layoffs eventually lead to a fall in wages, production costs fall, AS shifts right.

Question #5 Policies (Total=20 marks)

Suppose the Canadian economy can be described as follows:

$C = 200 + 0.6 Y_d$ (Y_d is disposable income)	$I = 250$	(investment spending)
$G = 275$ (government purchases)	$T = 0.25Y$	(percentage taxes)
$X = 155$ (exports are constant)	$Z = 0.25Y$	(imports depend positively on our own Y)

- (i) Calculate the equilibrium Y. Also let this value of Y to be Y_p (2 marks).
Ans: Y=1100.
- (ii) Find the autonomous multiplier (2 marks).
Ans: 1.25.
- (iii) Find the government budget balance $BB = tY - G$, given your Y in (i). Is the government running a surplus or deficit or neither? (1 mark).
Ans: BB=0.
- (iv) Suppose the recent financial market problems have led consumer confidence to drop from 200 to 140. Find the new Y (2 marks).
Ans: Y=1025.
- (v) Using three rounds, explain how the drop in consumer confidence affects Y. Let the first round be related to autos and the second round related to clothing (6 marks).

Ans: First round means our auto production will drop by 60 units. Their income will drop by 60. Second round means auto workers suffer a loss of income of 60, of which 25% or 15 would have gone to pay for taxes. They have to cut back their spending on clothing. However, they are only going to cut back their spending on clothing by 60% of 45 = 27. In addition, not all of these 27 units are suffered by Canadian clothing firms because part of these 27 units would have been imported from abroad. We would have imported $0.25(60) = 15$. Therefore, our Canadian firms suffer a loss of only $27 - 15 = 12$. Our total production of clothing drops by 12. Notice that the drop in imports is $0.25Y$, not $0.25(Y - T)$. Since Y has dropped by 60, this is why imports have fallen by 15.

- (vi) Find the government budget balance, given your Y in (iv). Is the government running a surplus or deficit or neither? (1 mark).
Ans: $BB = -18.75$.
- (vii) Suppose the government wants to push the economy back to the Y level in (i) but with consumer confidence still at 140. Find the new G necessary. Also find the new budget balance BB (4 marks).
Ans: $G=335$, $BB= - 60$.
- (viii) Without further calculations, argue whether you would support the government's action from above. Name one benefit of the government's action and also one cost arising from its action (2 marks).
Ans: Cost \rightarrow digging deeper into deficits; benefit \rightarrow prevent a prolonged recession.