Midterm Exam #2: 14.02

#### Spring 2000

Full Name: TA Name: Section Time:

STOP! Failure to follow these instructions may be detrimental to your grade.

The exam consist of 2 parts on 3 pages. Please answer all of the questions completely. The total score is 60. You have 90 minutes to complete the exam. Please use two blue books for the exam, one for each part. Be sure to LEGIBLY write your full name, TA's name, section time, and part number on the front of each blue book. When finished with the exam, you must return all blue books and this signed exam sheet to a proctor.

Show your calculations and explain all answers in your blue books. If you think that any question is ambiguous, then say so in your answers and explain what assumptions you made to resolve the ambiguity.

You can use a calculator, but no notes or other assistance are allowed.

GOOD LUCK!

# Part I – Blue Book 1. This part consists of two questions: question 1 and question 2.

Question 1. Multiple choice. Choose the answer that is most correct. Do not provide an explanation for your answer (3 points each -15 points total).

- 1. Which of the following may shift the AS curve?
- (A) A sudden increase in the price of oil.
- (B) A new law that weakens the labor unions.
- (C) An inflow of immigrants into the country.
- (D) A and B
- (E) all of the above.
- 2. The natural rate of unemployment will be increased by
- (A) a decrease in union power.
- (B) a less competitive market environment.
- (C) a fiscal contraction.
- (D) a monetary expansion.
- (E) none of the above
- 3. The life-cycle theory of consumption has the following implications:
- (A) Consumers should try to avoid running into debt.
- (B) Consumers should try to save when times are bad and dissave when times are good.
- (C) For young people investing in their education, it would be optimal to borrow some money for current consumption.
- (D) If the government announces that it will raise income taxes five years from now in order to give more grants to developing countries, it should not affect your consumption in the next four years.
  - (E) B and C
  - (F) A and D

- 4. One year Japanese bonds have a rate of return of 6%, while US T-bills have a rate of return of 4%. Where should an investor invest her wealth?
  - (A) Hold Japanese bonds since the yield is higher.
  - (B) Hold US bonds if the dollar is expected to depreciate more than 2% over the coming year.
  - (C) Hold US bonds if the dollar is expected to appreciate more than 2% over the coming year.
- (D) Japanese investors should always hold Japanese bonds, US investors should always hold US bonds.
  - (E) none of the above
  - 5. Under a flexible exchange rate regime, which of the following affects the exchange rate?
  - (A) Monetary policy.
  - (B) Fiscal policy.
  - (C) Expectations over future exchange rates.
  - (D) A and C
  - (E) all of the above

# Question 2. True or False? Explain your answer in at most 2 sentences (3 points each -24 points total).

- 1. Since consumption is a much larger fraction of GDP than investment, volatility of consumption accounts for a larger proportion of total output volatility.
  - 2. Contractionary fiscal policy in Canada is likely to decrease the US trade deficit.
- 3. A fiscal expansion usually leads to a worsening of both the budget deficit and the trade deficit. The effect of a monetary expansion is likely to be different.
- 4. The coefficient of the independent variable in a regression of the logarithm of consumption against the logarithm of income is the income elasticity of consumption.
- 5. Rank the following in order of size, from largest to smallest in the US economy: investment, national income, consumption, GDP. (Note: this is not a "real" true false question. You are supposed to write down the ranking without any explanation.)
  - 6. A fiscal expansion has a larger effect on output in a closed economy than in an open economy.
- 7. If the goal of the government and the central bank is to raise investment without changing output, then the government should decrease spending and the central bank should sell bonds in the open market.
- 8. In the AS-AD framework, the short-run effect on output of a fiscal expansion is larger, the steeper is the AS curve.

### Part II – Blue Book 2. This part consists of three question: questions 3, 4 and 5.

#### Question 3. Foreign trade (7 points)

Assume the following elasticities of export and import *quantities* with respect to the exchange rate. (The exchange rate is defined as units of local currency per unit of foreign currency.)

	Local exports	Local imports
short term	0.3	-0.2
long term	1	-0.8

Also assume that net exports are initially zero. Write down the *percentage change* for the different figures in the table, following a 10% depreciation of the local currency against the foreign currency. In the "value" columns, use values in *domestic* currency. In the 'Net exports' column,

indicate only the *sign* of changes. Show your calculations and interpret your results. (Note: Write your answers in the blue book, not on the exam sheet!)

	Exports	Exports	$\operatorname{Imports}$	Imports	Net exports
	(quantities)	(value)	(quantities)	(value)	(value)
short-term					
long-term					

### Question 4. (7 points total) The LM curve

- a) (3 points) What are the two most important variables affecting the demand for money? Explain why they affect it.
  - b) (2 point) Derive the LM curve from money demand and money supply.
  - c) (2 points) Describe how an open market operation affects the interest rate.

## Question 5. (7 points total) The Phillips curve, early and modified versions

- a) (4 points) Explain in words the key insight or change in thinking about wage determination that created the modified version of the Phillips curve.
- b) (3 points) Write down the equation that summarizes the modified version of the Phillips curve. You need not derive this expression; merely present it.