

EC6012 Sample Exam

March 30, 2009

Instructions

All questions carry equal marks. You'll have to attempt 5 from 6 questions. Your best 5 questions will be marked. Here are 3 sample questions.

Question 1

Use the behavioural transactions matrix given in table 1 to answer the following question.

	1. Households	2. Production	3. Government	Σ
1. Consumption	$-C_d$	$+C_s$		0
2. Government Expenditure		$+G_s$	$-G_d$	0
3. [Output]		[Y]		0
4. Factor Income	$+W \cdot N_s$	$-W \cdot N_d$		0
5. Taxes	$-T_s$		$+T_d$	0
6. Change in Money Stock	$-\Delta H_h$		$+\Delta H_s$	0
Σ	0	0	0	0

Table 1:

- (5 marks) Why should the rows and columns sum to zero? Give an economic interpretation, and contrast this type of modeling in mainstream macroeconomics.
- (5 marks) Is this economy open or closed? Why?
- (5 marks) Why does [output] appear only once in the matrix?
- (10 marks) Give an economic explanation for each row, 1–6, as if you were writing a textbook entry on this model.
- (10 marks) Give an expression for the Gross Domestic Product of this economy. Justify your answer with reference to your definitions in parts 1 and 2 of this question.
- (10 marks) Give an expression for Total Production in this economy.
- (10 marks) What further behavioural assumptions are required to ‘close’ this model?

Question 2

Use the model of single government with household Portfolio choice PC to answer this question.

	Central Bank					Σ
	Households	Production	Government	Current	Capital	
Consumption	- C	+ C				0
Govt. Expenditures		+ G	-G			0
Income = GDP	+Y	-Y				0
Interest Payments	$+r_{-1} \cdot B_{h-1}$		$-r_{-1} \cdot B_{-1}$	$+r_{-1} \cdot B_{cb-1}$		0
Central Bank Profits			$+r_{-1} \cdot B_{cb-1}$	$-r_{-1} \cdot B_{cb-1}$		0
Taxes	-T		+T			0
Change in Money	$-\Delta H$				$+\Delta H$	0
Change in Bills	$-\Delta B_h$		$+\Delta B$		$-\Delta B_{cb}$	0
Σ	0	0	0	0	0	0

Table 2:

- (5 marks) Define what you understand by a ‘bond’.
- (5 marks) Briefly describe how the inclusion of a central bank might affect the behaviour of the SIM equation system given in table 3.
- (20 marks) Derive an expression for household wealth using the transactions matrix given in table 4. How does this affect the consumption function given in model SIM? Sketch a graph of disposable income and consumption over 50 periods to the steady state.
- (10 marks) Can the central bank make a profit in this economy? If so, how much, and where does this profit go?
- (10 marks) Does the public sector pay interest on its own debt? What does this imply for real world monetary policy? Give an application of this property from your own reading or experience.

Question 3

(30 marks) Set out in detail, and analyze carefully, the strengths and weaknesses of neo-Classical marginal productivity theory, based on an aggregate production function, for macro-economic model-building. (20 marks) Pay particular attention to the assumptions used in neo-Classical productivity theory in your answer.

Question 4

Considering how poorly our bankers have faired recently, it makes sense to curtail their activities significantly. The ECB and the Federal Reserve should increase the reserve requirements to close to 100% to gain complete control over the money supply.

(25 marks) Discuss this statement in detail with respect to the current international economic environment. (10 marks) Do you agree or disagree with the statement, and why? (15 marks) Use your economic knowledge to formulate a coherent response for or against this statement in macroeconomic terms.