GX348

National University of Ireland, Galway
Ollscoil na hÉireann, Gaillimh

SUMMER EXAMINATIONS 2000

EC217 - MACROECONOMICS

Faculty of Arts — Dámh na nDán

Dr. Jeff Round
Professor M. P. Cuddy
Dr. Jennifer Stewart

INSTRUCTIONS

Time Allowed: 3 Hours

There are three parts to this exam for a total of 180 marks. Answer all questions in the booklet provided.

In Part A, answer **15 out of the 20** short-answer questions (4 marks per question for a total of 60 marks). Only the first 15 questions answered will be marked.

In Part B, choose **2 out of the 5** questions to answer (40 marks per question for a total of 80 marks). Only the first two questions answered will be marked.

In Part C, choose **1 out of the 3** questions to answer (40 marks). Only the first question answered will be marked.

Note: 3 hours = 180 minutes. 180 marks in 180 minutes is a mark per minute. Allocate your time appropriately.

PART A. Answer **15 out of the 20** short-answer questions (4 marks per question for a total of 60 marks).

1. What happens to GDP when the owner of a small firm marries her secretary and stops paying for his work, which he continues to perform?

2. State the Ricardian Equivalence proposition.

3. How would an increase in productivity affect Tobin's q?

4. What are two implications of assuming that the production function for an economy exhibits constant returns to scale?

5. What are two explanations for why the real wage may not fall so that the labour market would move towards equilibrium?

6. What is frictional unemployment?

7. Define M1 and M3.

8. In the model of optimal cash management, how does a change in consumption affect average real money holdings?

9. What is the classical dichotomy?

10. What are the leakages of income from the circular flow diagram?

11. Define the relative purchasing power parity principle.

12. What is core inflation?

13. What is the impact of a depreciation in the real exchange rate on the PCA?

14. What are two components of Irish fiscal policy which act as automatic stabilizers?

15. Give two macroeconomic examples of time-inconsistent policy announcements.

16. What is the Laffer curve?

17. What is the Lucas critique?

18. What is the difference between forward contracts and currency futures?

19. State the uncovered interest rate parity condition.

20. What are the two main criteria for a region to be an optimal currency area?

PART B. Choose **2 out of the 5** questions to answer (40 marks per question for a total of 80 marks).

1. Bill has an income path of £100 this period and £100 next period. Monica has an income path of £0 this period and £210 next period (after book sales).
   a) If both Bill and Monica consume £100 this period and £100 next period what is the interest rate?
   b) If the interest rate increases, what happens to the level of Bill's current consumption? Is Bill better or worse off with the higher interest rate?
   c) If the interest rate increases, what happens to the level of Monica's current consumption? Is Monica better of worse off with the higher interest rate?

2. Green Isle has a production function of $Y = K^{\alpha} H^{\beta} L^{1-\alpha-\beta}$. It has a capital output ratio (K/Y) equal to 4, and a human capital output ratio (H/Y) equal to 5. Its population grows at the rate of 3% per year, the share of capital in income is 0.30, and the share of human capital in income is 0.40. What is rate of growth of Green Isle's GDP per capita if the savings rate in capital and human capital is 20%?

3. Using our model of a small closed economy with a fixed level of capital, show the effect of increased funding to third level institutions which results in a more productive labour force. Consider separately the cases of fixed and flexible prices.

4. Using the IS-LM and AS-AD diagrams, show the effects of an expansionary monetary policy combined with a tight fiscal policy under fixed exchange rates.

5. A small economy, with full external capital mobility, is characterised by the following equations:

$$\frac{M_t}{P_t} = 0.5\bar{Y} - 30000\left[i^* + \frac{E_{t+1} - E_t}{E_t}\right]$$

$i_t = i^* + \frac{E_{t+1} - E_t}{E_t}$, with output equal to $\bar{Y} = 8000$ and the foreign interest rate equal to $i^* = 0.04$. The real exchange rate is $\lambda = 1$ and the foreign price level is $P^* = 0.5$. Describe the impact on this economy in the short-run of an unexpected increase in nominal money stock, M_t, from 2000 to 3000, assuming that the nominal exchange rate, E, was initially at its long-run equilibrium level. Hint: in the long run equilibrium relative purchasing power parity holds.

PART C. Choose **1 out of the 3** questions to answer (40 marks per question for a total of 60 marks).

1. The Irish government's most recent budget has decreased income taxes in Ireland. With specific reference to models discussed in class, discuss the impact of this budget on the Irish economy given that Ireland is now part of the Euro zone.

2. Governments have both demand-side and supply-side policy alternatives available. With reference to specific models and empirical evidence, what policies should the Irish government prioritise at this time?

3. How should policymakers try to raise the economy's natural rate of output? Support your argument with specific reference to models discussed in class.