

OLLSCOIL NA hÉIREANN, GAILLIMH
NATIONAL UNIVERSITY OF IRELAND, GALWAY

SUMMER EXAMINATIONS 1999

EC217 - MACROECONOMICS
2nd Arts

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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 **20 out of the 25** short-answer questions (3 marks per question for a total of 60 marks). Only the first 20 questions answered will be marked.

In Part B, choose **2 out of the 5** questions to answer (30 marks per question for a total of 60 marks). Only the first two questions answered will be marked.

In Part C, choose **2 out of the 5** questions to answer (30 marks per question for a total of 60 marks). Only the first two questions answered will be marked.

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

PART A. Answer **20 out of the 25** short-answer questions (3 marks per question for a total of 60 marks).

1. Consider the case of a household that is unable to borrow. What is the effect on its consumption pattern of a fall in the real interest rate?
2. Consider an economy with a production function, $F(K) = 12K^{1/3}$. The real interest rate is 10 percent. What is the optimal capital stock in this economy?
3. Explain the opportunity cost of investment.
4. What is the golden rule of capital accumulation if capital depreciates at rate δ ?
5. What is the importance of Tobin's q ?
6. Consider a country with no technological progress, a capital output ratio (K/Y) equal to 3, a population growth rate of 2% per year, a share of capital in income of 0.25 and a savings rate of 30%. What is growth rate of this country's GDP per capita?
7. What is the Solow decomposition?
8. Describe the convergence hypothesis.
9. What are the functions that money performs?
10. Assuming that the public wishes to hold a proportion, cc , of their deposits in the form of currency, and that the banks wish to keep a fraction, rr , of deposits as bank reserves, what is the formula for the money multiplier?
11. What does the Central Bank of Ireland do?
12. Desired demand is represented by the following simplified function:

$$1500 + 0.8(Y - T) + G - 80i.$$

T is constant and equal to 3000. Find GDP compatible with equilibrium when $G = 3000$ and $i = 5\%$, assuming that the price level remains constant.
13. Define the natural rate of unemployment.
14. Describe efficiency wages.
15. What is the classical dichotomy?
16. Show the effect on the short-run and long-run Phillips curves of an oil shock, i.e., a once-and-for-all increase in the price of imported energy, assuming that core inflation remains unchanged.
17. Suppose that an economy has the Phillips curve: $\pi = \pi^c - 0.5(U - 0.6)$. What is the equilibrium rate of unemployment?
18. What is Okun's Law?
19. What is the sacrifice ratio?
20. Consider a country that has a growth rate of 3.5%, a debt to GDP ratio of 40%, and a real interest rate of 6%. What is the necessary primary budget to GDP ratio to keep the debt to GDP ratio constant?
21. What is credibility and why do governments need to be concerned?
22. What is the median voter theorem?
23. What is the difference between futures and forward contracts?
24. State the covered interest parity condition.
25. Who is the president of the ECB?

PART B. Choose 2 out of the 5 questions to answer (30 marks per question for a total of 60 marks).

1. Show how an increase in the interest rate affects the optimal level of capital stock. How would an increase in the rate of depreciation affect the optimal level of capital stock? What would be the impact of a decrease in installation costs?
2. Illustrate and describe the effect unions could have on the labour market.
3. "There is always a temporary tradeoff between inflation and unemployment"-Milton Friedman. Illustrate and explain this quote.
4. Using the IS-LM and AS-AD diagrams, show the effects of a tight monetary policy combined with an expansionary fiscal policy under fixed and flexible exchange rates.
5. What lags affect economic-policy making and how do they affect the effectiveness of fiscal policy?

PART C. Choose 2 out of the 5 questions to answer (30 marks per question for a total of 60 marks).

1. We have used intertemporal models of household and firm behaviour to derive several of the key structural equations in our macro models. Explain one of these theories and make clear the macro policy implications that arise from this micro underpinning.
2. Governments have both demand-side and supply-side policy alternatives available in order to stimulate an economy. With reference to specific models, what policies should the Irish government prioritise at this time?
3. The ECB has taken over monetary policy for the 11 euro countries. What are the advantages and disadvantages of the ECB structure? What are some of the important issues facing the ECB?
4. What are the implications of the academic debate between Monetarists and Keynesians for Irish policy makers?
5. As the euro came into being on January 1st of this year, four countries in the EU have remained outside of the EMU. What do you predict will happen to monetary and exchange rate policy for these 'outsiders'?