GD432

OLLSCOIL NA hÉIREANN
NATIONAL UNIVERSITY OF IRELAND, GALWAY

SUMMER EXAMINATIONS 2002

MACROECONOMICS (EC 217)

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Time allowed: THREE hours

This exam paper consists of 2 parts: Short questions (50 points) and long questions (50 points). Please use a different answer book for each part of the paper.

PART A (12 short questions)

Please answer any 9 questions

1. Explain verbally and graphically the twin-deficit hypothesis.

2. Explain the spending hypothesis as a causal factor of the Great Depression.

3. Explain Okun's law. What would be the effect on the rate of output growth if unemployment falls from 8% to 7% ?

4. Discuss the disadvantages of discretionary macroeconomic policy.

5. Suppose the job finding rate is 10% and the job separation rate is 20%. Find the natural rate of unemployment. What types of public policy could be used to reduce the natural rate of unemployment ?

6. Explain (i) the usefulness of efficiency wage theories in explaining unemployment and (ii) the insider/outsider theory of unemployment.

7. What do we mean by classical dichotomy and monetary neutrality ?

8. Explain the impact of expansionary domestic fiscal policy on the real exchange rate and the trade balance of a small open economy.

9. Derive the IS curve graphically. What is the meaning of this curve ?

10. Explain how the theory of hysteresis accounts for a variable natural rate of unemployment.

11. Explain how a Central bank accommodates an adverse supply-side shock. What are the effects of the accommodating policy on the price level and output?

12. Use the IS-LM model to explain the effects of expansionary monetary policy on the real interest rate r and output Y. What is the monetary transmission mechanism?

PART B (6 long questions)

Please answer any 3 questions

1. (i) Explain the sticky-price model and its prediction on the short-run relationship between the price level and output. Derive the equation for the short-run aggregate supply curve.
   (ii) How is the short-run aggregate supply curve modified if all firms set sticky prices (i.e., s=1) ?
   (iii) Explain why the sticky-price model is consistent with the observed pro-cyclicality of real wages.

2. (i) Use the IS-LM model to explain, both verbally and graphically, the effects on the interest rate, output, consumption, and investment, in the following cases:

   (a) An increase in money demand
   (b) An decrease in government purchases
   (c) An decrease in taxes
   (d) An decrease in government purchases and taxes by the same amount

   (ii) Explain in each of the above cases, the impact on the AD curve and the short-run equilibrium of the economy using the AD/AS analysis.

3. (i) Consider the model:

$$Y = C + I + G + NX$$
$$Y = 5{,}000$$
$$G = 2{,}000$$
$$T = 2{,}000$$
$$C = 500 + 0.8\,(Y - T)$$
$$I = 1{,}000 - 100r$$
$$NX = 500 - 500\,\varepsilon$$
$$r = r^* = 9$$

   (a) Solve the model for national saving, investment, the trade balance, and the equilibrium real exchange rate.

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(b) Repeat the above analysis, assuming that G has decreased to 1,800. Explain your findings and compare them to those in part (a).

(c) Repeat the analysis of part (a), assuming $r^* = 5$. Explain your findings and compare them to those in part (a).

(ii) Are trade deficits always bad ? Explain.

4. Consider the Phillips curve:

$$\pi = \pi_{-1} - 0.4\,(U - 0.05)$$

(a) Find the natural rate of unemployment.
(b) Plot the short-run and long-run relationship between inflation and unemployment.
(c) Find the necessary effect on output growth and unemployment in order to reduce inflation by 5 percentage points.
(d) Provide 3 scenarios for the output reduction and the unemployment increase that reflect different degrees of the speed of disinflation.

5. (i) Consider an economy described by the following equations:

$Y = C + I + G$
$Y = 5{,}000$
$G = 1{,}000$
$T = 1{,}000$
$C = 250 + 0.75\,(Y - T)$
$I = 1{,}000 - 50\,r$

(a) Find the values of private saving, public saving, and national saving.
(b) Find the equilibrium interest rate
(c) Suppose that G rises to 1,250 (but T is still 1,000). Repeat parts (a) and (b) above.
(d) Suppose that T rises to 1,250 (but G is still 1,000). Repeat parts (a) and (b) above.

(ii) What are the determinants of the equilibrium real interest rate in a closed economy? Explain.

6. (i) State and explain the quantity equation.

(ii) Explain the money demand theory derived from the quantity equation.

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(iii) According to the quantity theory of money, monetary growth determines the inflation rate. Explain. What assumptions are necessary to obtain this restult?

(iv) Explain how a higher expected future growth of money supply leads to a higher price level in the current period.