

OLLSKOIL NA hEIREANN
NATIONAL UNIVERSITY OF IRELAND, GALWAY

AUTUMN EXAMINATIONS 2002

MACROECONOMICS (EC 217)

Second Arts

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Time allowed: THREE hours

Please answer FOUR questions.

1.
 - (i) State the equation for the upward sloping short-run aggregate supply curve.
 - (ii) Explain the worker-misperception model that predicts a short-run relationship between the price level and output, as implied by the equation in (i) above.
 - (iii) Explain short-run nonneutrality and long-run neutrality of monetary policy using the AD/AS apparatus.

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 supply
 - (b) A decrease in government purchases
 - (c) A decrease in taxes
 - (d) An increase in government purchases and taxes by the same amount
 - (e) An increase in money demand
 - (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:

$$Y = C + I + G + NX$$

$$Y = 5,000$$

$$G = 1,000$$

$$T = 1,000$$

$$C = 250 + 0.75(Y - T)$$

$$I = 1,000 - 50r$$

$$NX = 500 - 500 \varepsilon$$

$$r = r^* = 5$$

- (a) Solve the model for national saving, investment, the trade balance, and the equilibrium real exchange rate.
 - (b) Repeat the above analysis, assuming that G has increased to 1,250. Explain your findings and compare them to those in part (a).
 - (c) Repeat the analysis of part (a), assuming $r^* = 10$ (and $G = 1,000$). 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. Explain.
- (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) According to the theory, what are the determinants of the equilibrium real interest rate in a closed economy? Explain. How is your answer modified for an open economy ?