MACROECONOMIC POLICIES

Exam 1: 14/01/2009 **2 h 30m**

I (4,5 values)

Describe briefly **3** of the following concepts:

i. Deflation.
ii. The Fisher effect.
iii. The Washington Consensus.
iv. The Lucas (1990) paradox.
v. The Debt Laffer curve.

II (7 values)

Consider a closed economy where firms perceive the production function to be of the form Y=AK. In this economy the population is constant, the saving rate (out of the disposable income) is *s*=0.24 and the depreciation rate is equal to δ=0.04. Assume also that the government levies a tax τ on production.

a. Consider for the moment that *A=0,5* and $\tau = 1/4$. Find out the growth rate of per capita income in this economy. Discuss, with the help of a graph the dynamic properties of this model.

b. On the basis of what you learned about distortions, suggest some alternative interpretations for the parameter τ in this model.

c. Examine the growth implications of an increase in the tax rate to $\tau = 1/3$, while keeping *A=0,5*. If the households were instead able to optimize their inter-temporal consumption, the growth effect would be the same? Discuss.

The economy underlying the AK production function described above is actually more complex than at the first sight. In particular, $A = (G/Y)^{0,5}$, where G is a public good.

d. Find out the expression for aggregate output in this economy and explain why there is a market failure.

e. Assuming that the tax proceeds are used to finance the public good, find out the benevolent planner solution for τ and the corresponding growth rate. With the help of a figure relating the growth rate of the economy with the tax rate, compare this case with that analysed in (c). Discuss.

III (3 values)

Consider an economy where workers are free to decide the time they allocate to formal work and to rent seeking. In that economy, the wage rate (w) depends on the proportion of time devoted to rent seeking (ψ) and on per capita income (y), according to the following equation: $w/y = 0,08/(1-\psi)$. On the other hand, individual optimization

leads to the following arbitrage condition $w/y = 0.5b$, where b measures the "effectiveness of rent seeking".

f. Explain the equations above and their intuition. In particular, explain what is behind parameter b.

g. Assume that the effectiveness of rent seeking is itself a positive function of the level of rent seeking: $b = \psi$. Is this assumption realistic? Explain how useful it is for the model to explain the real world facts. Find out the equilibrium values of ψ.

IV (3,5 values)

Icepolis is a small open economy with two goods, one tradable internationally and another non-tradable. In the initial situation, aggregate expenditure and aggregate production are equal and the economy is in internal and external balance.

h. Assume that Icepolis is hit by a large capital inflow. Knowing that the central bank follows a fixed exchange rate regime, examine (with the help of a graph) the impact of this capital inflow on: the aggregate demand; the real exchange rate; the internal balance; the external balance.

i. Now assume that there is a sudden capital flow reversal. Explain the policy dilemmas of the policymakers and the extent to which labour market flexibility matters for the adjustment process.

IV (2 values)

Comment <u>one</u>:

1. "A problem in stopping a hyperinflation is that the central bank has to allow the money supply to expand".
2. "If the government fails to implement a fiscal adjustment, any attempt to reduce inflation today will lead to more inflation in the future".