

Problem Set 9

Due: Wednesday, December 1

1. TRUE and FALSE (6 pts each)

- (a) TRUE. In the long run you have neutrality of money.
- (b) FALSE. Government spending increases and output is not affected in the long run. Therefore some other component of Z (investment) has to decrease.
- (c) FALSE. the second item is false because it will lead to a decrease in the stock market because the expected change was already incorporated in the price.
- (d) FALSE. Devaluation can be a tool of expansionary policy to get out of a recession.
- (e) FALSE. High inflation causes real overvaluation.
- (f) FALSE. The NAIRU is the unemployment rate at which inflation is constant.
- (g) FALSE. The aggregate supply leads to the Phillips curve relation.
- (h) TRUE. If people are rational, prices come out to be what people were expecting, therefore prices cancel out from the AS equation and unemployment is completely determined.
- (i) FALSE. Government can always change labor laws and institutional factor that will affect the 'z' term.
- (j) FALSE. Under these circumstances, prices are being higher than what people were expecting. Therefore workers will be receiving a lower real wage than what they were expecting.
- (k) UNCERTAIN (FALSE). It increases nominal interest rates but does not affect real interest rates.

2. QUESTION 2: Phillips curve (34 pts)

- (a) (10pt) Natural rate of unemployment is when expectations are correct. I.e.
 $u = \frac{0.18}{3} = 0.06$.

(b) (8 pt) For $\theta = 1$:

$$\pi_1 = 0 + 0.18 - 3 * 0.05 = 0.03$$

$$\pi_2 = 0.03 + 0.18 - 3 * 0.05 = 0.06$$

$$\pi_3 = 0.09$$

$$\pi_4 = 0.12$$

For $\theta = 0$, agents are rational therefore unemployment is determined by the NAIRU and the government can not affect it.

- (c) (6pts) For $\theta = 1$ you have the accelerating scenario and for $\theta = 0$ we are not able to move unemployment in the first place (but, anyway, if the government tried any expansionary policy it would all be translated into inflation).
- (d) (8 pts) You obtain the Phillips relation in every case except $\theta = 0$. In this case you have rational agents that can foresee the future inflation no matter what you do. So the labor market will be in its natural equilibrium (without any surprises).