

ECON 110, Professor Hogendorn

## Review Problem Set 10

### Review Problem only, not to turn in:

1. *AverageJoe*. This problem's title comes from an old *Wall Street Journal* article entitled "Average Joe saw inflation coming."

The idea that inflation expectations could grow on their own is intriguing. It is very relevant to the potential of Greece leaving the Euro for example. That would almost certainly cause inflation expectations to rise in excess of anything the Greek central bank announced.

Let the equation for the ADI curve be  $\pi = 0.03 - (Y - 1)$ .

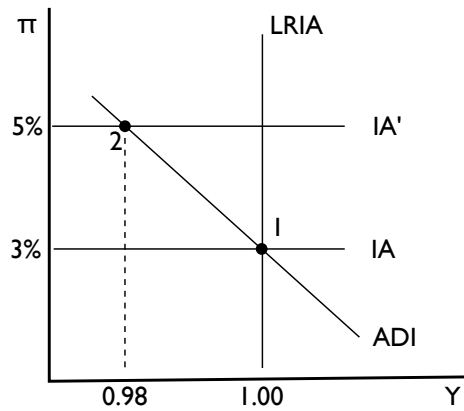
- (a) Draw the ADI and LRIA curves, showing a long-run equilibrium where inflation expectations  $IA$  are 3%.
- (b) Now suppose inflation expectations rise to 5%. Graph and label the new  $IA$  curve and the new level of output.
- (c) Illustrate the movement from part (a) to (b) on a labor market diagram. Note that it's not labor demand that will shift, it's the wages that will go up due to the higher inflation expectations. Show that this causes unemployment.
- (d) Suppose the natural rate of unemployment in this economy is 7%. Use Okun's Law to find the new level of unemployment in part (b).
- (e) Suppose the parliament of this economy grew concerned about the higher inflation, but were not able to convince the central bank to make any monetary policy changes. Could they

bring inflation down themselves by raising taxes? Explain how this would/would not work.

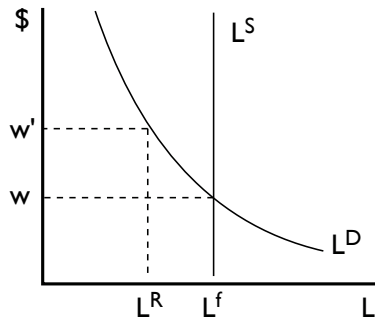
## Answers to Review Problem:

1. *AverageJoe\_a.*

- (a) Since the inflation rate is equal to expectations, output will be at full employment at point 1. (You can see this from the equation for the ADI curve.)



- (b) The rise in inflation expectations causes a movement along the ADI curve. The economy moves into recession (point 2).
- (c) Wages rise due to the higher expected inflation. There is no corresponding shift in labor demand, so the level of employment falls to  $L^R$ .



(d) We know from part (a) that  $Y^f = 1$ . Then Okun's Law says

$$\frac{1.00 - 0.98}{1} = 2(U - 0.07) \Rightarrow U = 0.08$$

(e) Suppose the government raised taxes. If nothing else changed, this would increase government savings ( $S_G = T - G$ ), and if prices are sticky, this would reduce aggregate demand. ADI would shift left. Since output is then even more below full employment, there is even more downward pressure on inflation expectations, and prices would slowly come down. So yes, this would work, but at the expense of a deeper recession.