14.02 Problem Set 6
Spring 1999, Solutions

Multiple Choice

1. b) and d)

2. b) and d)

3. This question was tricky, there is not a correct answer. Nevertheless the answer that is true "sometimes" is a). Sometimes refers to periods in which the fixed exchange rate regime is completely credible. So for those of you who answered a), we will take it as good. Of course, for those of you that say there was no answer we will take it as correct.

4. b), c) and d) are the correct answers.

Problems

1.

a)

	M	π	***y***	***y****
T_0	4%	4%	10	10
T_1	4%	4.66%	10.016	10
T_2	4%	5.78%	10.027	10
T_3	4%	7.07%	10.032	10

b)

	Rate of Growth of Income
t_0	
t_1	0.166%
t_2	0.111%
t_3	0.046%

The growth rate of money increment has a positive impact in the growth rate of income. Income increases from 10 in period zero to 10.032 in period 3. However, the magnitude of the effect is reduced through time.

c) Short run effects of monetary policy tend to be substantial. However, overtime the effects tend to disappear. The variable that does the adjustment is the inflation rate. In this model, inflation in the long run will have the same value as the growth rate of money supply. This is something that we see in the equations, inflation jumps from 4% in period zero to 7.07% in period 3. In the long run, increases in the growth rate of money are translated into increments in inflation, leaving employment unchanged.

2.

a) The indicator is W/EP*, this give you the quantity of consumption baskets that the representative household can buy.

b) Landlockia's exchange rate will be appreciated. Interest rate has not change in Landlockia, therefore according to the arbitrage condition, there should be an appreciation of the exchange rate. This will increase the value of the well-being indicator.

c) After adopting a fixed exchange rate regime, the type of change in E that would be supported by Landlockia nationals is a revaluation of the exchange rate (an appreciation). This has the same effect on the well-being indicator as in part b).

d) The first conclusion is that the level of the exchange rate is related to the level of households' consumption. This example is very simple, but under more general conditions, changes in the exchange rate affect imports prices and, through prices of imported intermediate, some domestic good prices. The second conclusion is that certainly the long-run and short-run effects of a devaluation (depreciation) or a revaluation (appreciation) are different. In the short-run it is possible to increase consumption with an overvalue exchange rate; however, that can not last forever and eventually the exchange rate should depreciate to get trade balance equal zero or positive.