

Economics 4905  
Financial Fragility and the Macroeconomy  
Fall 2015

Problem Set #3  
Due Monday, November 23, 2015

Overlapping Generations. 2 period lives. 1 commodity per period,  $l = 1$ .  
Stationary endowments:

$$\begin{aligned}\omega_0^1 &= 2 > 0 \text{ for } t = 0 \\ (\omega_t^t, \omega_t^{t+1}) &= (2, 2) > 0 \text{ for } t = 1, 2, \dots\end{aligned}$$

Stationary preferences:

$$\begin{aligned}u_0(x_0^1) &= 4 \log x_0^1 \text{ for } t = 0 \\ u_t(x_t^t, x_t^{t+1}) &= \log x_t^t + 4 \log x_t^{t+1} \text{ for } t = 1, 2, \dots\end{aligned}$$

Taxation:

$$m_0^1 = 10 \quad m_t^s = 0 \text{ otherwise}$$

Goods price of money is  $p^m \geq 0$ .

Derive the offer curve in excess demand space  $(x_t^t - \omega_t^t, x_t^{t+1} - \omega_t^{t+1})$  for Mr.  $t \geq 1$ . Analyze the global dynamics.

Be precise. Find steady-state equilibria. Describe all possible paths. Include in your answer: hyperinflation, hyperdeflation, bursting bubbles, non-bursting bubbles.