Economics 614: Macroeconomics II
Spring 2006
Cornell University
Problem Set #6
Due: Wednesday, March 1

1 Overlapping Generations:

2-period lives.
1 commodity per period, $\ell = 1$.
Stationary endowments:

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

Stationary preferences:

$$\begin{aligned} u_0(x_0^1) &= D \ln x_0^1 \text{ for } t = 0 \\ u_t(x_t^t, x_t^{t+1}) &= C \ln x_t^t + D \ln x_t^{t+1} \text{ for } t = 1, 2, ... \end{aligned}$$

Passive fiscal policy:

$$m_0^1 = 2 \qquad m_t^s = 0 \text{ otherwise}$$

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

Precisely plot (use graph paper if necessary) the offer curve in excess demand space $(x_t^t - \omega_t^t \ , \ x_t^{t+1} - \omega_t^{t+1})$ for Mr. $t \geq 1$. Plot the reflected offer curve, and analyze the global dynamics for each of the following cases:

(a) $A = 1, B = 2, C = 2, D = 1$
(b) $A = 2, B = 2, C = 1, D = 4$
(c) $A = 8, B = 5, C = 4, D = 6$
(d) $A = 2, B = 8, C = 1, D = 4$

Is there a pattern?
Derive the conditions for a "Samuelson" versus a "Classical" economy and relate them to the above?

Let $m_0^1 = -1$ (negative money). Redo all the exercises above. Is there a pattern? What happens to the Samuelson economy when going from positive money to negative money? The classical economy? [Hint: Be sure to plot the **FULL** reflected offer curve.]