

## Problem Assignment for Econ 727

Due in Class 3/30/2010

**Problem 1.** Consider an economy in which the LM and IS functions are given by:

$$\text{LM} \quad m_t - p_t = \gamma + c_2 R_t$$

$$\text{IS} \quad R_t = r + E_t(p_{t+1} - p_t) + \eta_t$$

Assume that the monetary authority creates money according to:

$$m_t = \mu_0 + \mu_1 t + e_t$$

Assume that  $e_t$  and  $\eta_t$  are white noise and find the solution for  $p_t$ .

**Problem 2.** Consider an economy in which aggregate demand and supply relationships are given by:

$$\text{AD} \quad y_t = \beta_0 + \beta_1(m_t - p_t) + v_t$$

$$\text{AS} \quad y_t = \bar{y} + \alpha(p_t - E_{t-1}p_t)$$

Suppose that the monetary authority conducts policy according to:

$$m_t = \mu_0 + \mu_1 v_{t-1} + e_t$$

where  $e_t$  is white noise. Derive a solution for  $p_t$ . Then substitute into the AS equation to obtain a solution for  $y_t$ .