

Homework # 4

1.

Consider the Mundell-Fleming model. Assume a transitory component in the residual of the money supply stochastic process, as follows.

$$m_t^s = g_m + m_{t-1}^s - \phi \varepsilon_{mt-1} + \varepsilon_{mt} \quad , \quad \phi \geq 0$$

Assume a price determination as follows.

$$p_t = (1-\theta)E_{t-1}(p_t^e) + \theta p_t^e$$

Solve the model for inflation and exchange rate.

2.

Assume that the money supply is affected by aggregate demand (that is, the government deficit), as follows.

$$m_t^s = g_m + m_{t-1}^s + \rho d_{t-1} + \varepsilon_{mt} \quad , \quad \rho \leq 0$$

Solve for the endogenous variables, and compute the value of  $\rho$  which minimizes the inflation variance.