

Department of Humanities and Social Sciences
Monetary Economics (HS31082)
Final Examination (Spring 2017)

1. Consider a Dynamic AD-AS Model discussed in the class with only supply shock. (20)

$$y_t = -\alpha(\hat{i}_t - \pi_t), \alpha > 0$$

$$\hat{i}_t = \phi_\pi \pi_t + \phi_y y_t, \phi_\pi > 1, 0 < \phi_y < 1$$

$$\pi_t = \pi_{t-1} + \kappa y_t + v_t, 0 < \kappa < 1$$

- (a) Derive the dynamic equation of output and inflation as a function of supply shock (6)
- (b) Suppose, the supply shock follows the following process, $v_t = \rho^{t-1} v_1, 0 < \rho < 1$ for $t = 1, 2, 3, \dots$. Calculate the impulse response of inflation rate and output. Show that, due to supply shock, inflation rises and output falls temporarily and gradually converge to zero. Explain your result intuitively. (6)
- (c) What is the economic interpretation of ρ ? What happens to the dynamics of the system when ρ rises? (3)
- (d) Analyze the importance of Taylor principle in the context of supply shock. (5)

2. Short Notes (any 2) (20)

- (a) Overvalued pegged exchange rate and BOP crisis.
- (b) Neutrality and Superneutrality of money in MIU
- (c) Sterilized intervention in Foreign Exchange

3. Analyze monetary policy in Mundell-Fleming model under fixed exchange rate when domestic and foreign bonds are not substitutes of each other. (10)