Exchange-Rate Dynamics
Chapter 4

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Rational Expectations Models

Outline:

1. The Model
2. Equilibrium With Common Information
3. Equilibrium with Heterogeneous Information
    i. Informational Efficiency and The Grossman Paradox
    ii. Higher Order Expectations
    iii. Heterogeneous Information and Rational Confusion
    iv. Heterogeneous Information and Persistence
    v. Dynamic Implications
4. Equilibrium Problems

4.3 Equilibrium with Heterogeneous Information

Dynamic Implications

Simulation of the model with:

$\alpha = 10, \rho = 0.8,$ and $\sigma_u^2 = \sigma_\xi^2 = 0.01$

Note:

- the spot rate appreciates two periods before the shock occurs and then gradually depreciates towards zero.
- the appreciation of the spot rate in periods -2 and -1 is larger than in period 0 when the shock hits. This is the opposite of what we would see with homogeneous information
- once the shock has occurred, informational heterogeneity adds very little to the dynamics.

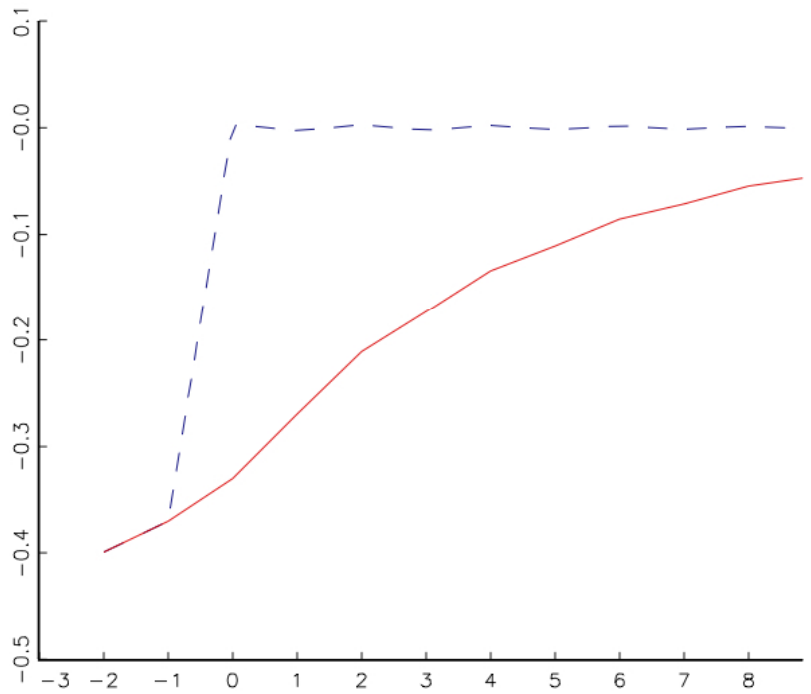
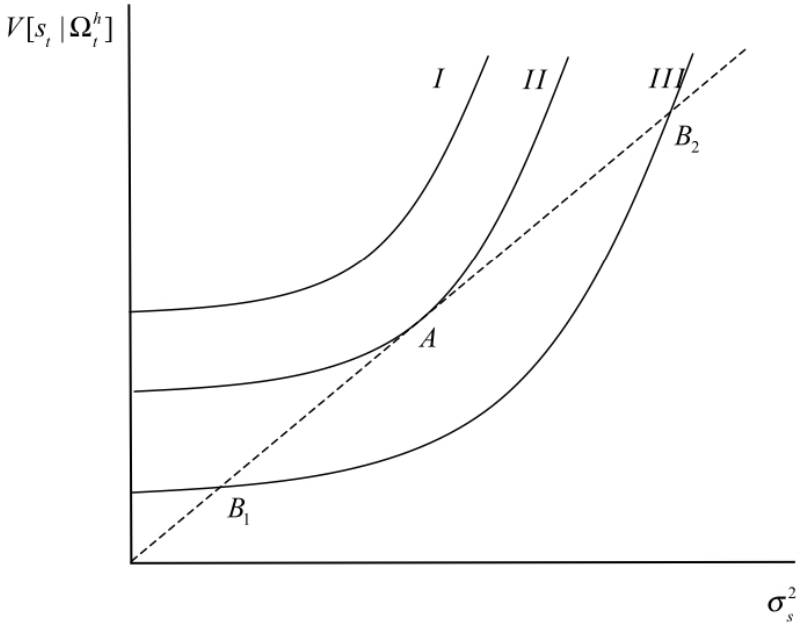


Figure 1: Impulse response of the log spot rate, s_t (solid red line) and z_t component (dashed blue line) to a monetary shock, $\hat{u}_t$.

4.4 Equilibrium Problems

Existence and Uniqueness



Notes:

- There is a unique equilibrium where the curve II intersects the 45° line at point A.
- There is no equilibrium with curve I, and
- There are 2 equilibria with curve III and B and B_2.