

Professor Karl Shell
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Economics 732: Monetary Economics II

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Problem Set # 4

Overlapping Generations

1.

$$\begin{aligned}u_t(x_t^t, x_t^{t+1}) &= A \log x_t^t + B \log x_t^{t+1} \\ \omega_t &= (\omega_t^t, \omega_t^{t+1}) = (C, D) \\ (A, B, C, D) &> 0\end{aligned}$$

Describe as function of the parameters A , B , C , and D :

- (a) the monetary steady state
 - (b) the nonmonetary steady state
 - (c) the dynamics
 - (d) welfare (in every case), not only in the steady state
 - (e) describe hyperinflation and hyperdeflation and market clearing
2. Prove existence of perfect-foresight equilibrium in a general OG model. You may base your argument on an existing proof from the literature.
3. Show in an OG model that
- (a) strongly balanced fiscal policies are bonafide, and
 - (b) asymptotically balanced fiscal policies may not be bonafide.
 - (c) Cite an example of an unbalanced fiscal policy that is not bonafide.
4. What is the relationship between bonafidelity in the monetary economy and existence of equilibrium in the associated non-monetary economy? Focus on the finite economy.