

1 Questions

1. Inequalities:

- (a) What does the expression "great inequality reversal" refer to?
- (b) Why is wealth inequality usually bigger than income inequality?

2. The liquidity trap: Using Krugman's model of the liquidity trap, explain why expanding the money supply fails to increase consumption when the nominal interest is zero.

2 Exercice: The Cagan Model

Let us consider a log-linear money demand function:

$$m_t^d - p_t = -\alpha(E_t p_{t+1} - p_t)$$

where m_t^d is the quantity of money demand, p_t the price and E_t is the rational expectation conditional on the information set in period t . α is a positive parameter. We assume that the money supply m_t^s is exogenous.

1. Using the equilibrium of the money market, determine the forward looking representation for the price p_t .
2. Solve this equation forward and determine the fundamental equation.
3. Assume that the money supply is constant:

$$m_t^s = m, \quad \forall t$$

Determine the price p_t .

4. Assume that the money supply is stochastic with an AR(1) process:

$$m_t^s = \rho m_{t-1}^s + \varepsilon_t,$$

where $\rho \in [0; 1]$ and $E_t \varepsilon_{t+1} = 0$. Determine the price p_t . Discuss the solution with respect to the values of ρ .

5. Assume now that the money supply is stochastic with an AR(1) process:

$$m_t^s = \rho m_{t-1}^s + \varepsilon_{t-1},$$

where $\rho \in [0; 1]$ and $E_t \varepsilon_{t+1} = 0$. Determine the price p_t .