

**Macroeconomic Policy
Class**

1 Problems

1. Consider the following model. Aggregate demand is given by:

$$y_t^d = m_t - p_t \quad (1)$$

and aggregate supply by:

$$y_t^s = \beta(p_t - {}_{t-1}p_t^e) + \bar{y}. \quad (2)$$

y_t^d is aggregate demand, m_t is the stock of money, p_t is the price level in time period t . y_t^s is aggregate supply, \bar{y} is potential output. ${}_{t-1}p_t^e$ is the expectation of the price level in period t formed in the previous period, $t - 1$. The monetary authority sets the stock of money according to the rule:

$$m_t = \rho y_{t-1} + \epsilon_t \quad (3)$$

ϵ_t are a set of zero mean disturbances or surprises, to monetary policy. Denote by I_{t-1} the information set available in period $t - 1$, and assume that the monetary policy errors are independent of this information, so $E(\epsilon_t | I_{t-1}) = 0$.

1. Assume expectations are rational so ${}_{t-1}p_t^e = E(p_t | I_{t-1})$. Solve for the level of output.
 2. Comment on the properties of this relationship for output.
 3. How can this result be reconciled with what Central Banks seek to do when determining policy?
 4. What modifications to the model would you suggest to bring it more into line with how we think the transmission mechanism of monetary policy works?
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2. Question 8 from Tripos Exam 2002
 3. Question 9 from Tripos Exam 2003
 4. Question 10 from Tripos Exam 2007

2 Readings

- **Mankiw, 1990, A quick refresher course in macroeconomics. Journal of Economic Literature XXVIII, 1645-1660.
- Clarda, Gali and Gertler, 1999. Journal of XXVIII, 1661-1707
- Romer, 2001. Advanced macroeconomics.
- Carl E. Walsh (2003) Monetary Theory and Policy, The MIT Press.
- Wendy Carlin and David Soskice (2006) Macroeconomics: Imperfections, Institutions & Policies, Oxford University Press. Chapter 5,6, 11 and 16.
- Holly, S. 2007, Macroeconomic Policy: Lectures 1 -3. (on Dr Holly's webpage).