

Homework 3

Macroeconomics 2

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Late Penalty Applies

Assume the following system of equations for our simple closed economy:

$$Y = C(Y) + I(Y, r) + G \quad (1)$$

$$L(Y, i) = \frac{M}{P} \quad (2)$$

$$H \left[\frac{(Y - \bar{Y})}{\bar{Y}} \right] = \frac{\dot{P}}{P} - \pi \quad (3)$$

Questions:

1. Characterize the slope of IS and LM
2. What restrictions should we put in place in order for the slope of IS to be negative?
3. Explain mathematically why the convergence requirement dictates that the slope of LM should be larger than the slope of IS . (Hint: use the analysis of $\frac{d\dot{P}}{dP}$ from page 39-40)!
4. Explain intuitively why the convergence requirement dictates that the slope of LM should be larger than the slope of IS !
5. Assuming static expectation, derive the quantity theory of money from the IS/LM relationship!