Universitat de Barcelona
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Macroeconomics - Group A8
Professor: Lorenzo Burlon

The money market and the LM curve.

List 6 - The LM curve.

1. Analyze graphically the effect of the purchase of treasury bonds by the central bank on the market for real money balances. Explain the mechanism behind.

2. Make an example of specific functional form for the liquidity function and indicate a parameter that corresponds to the responsiveness of the demand for real money balances to changes in the interest rate. Suppose that such a responsiveness increases. Then, indicate whether the following statements are true or false.

   (a) An increase in the interest rate will cause a smaller change in the demand for real money balances.

   (b) An increase in the income will cause a bigger change in the interest rate.

   Using the liquidity function from above, analyze what is the effect on the interest rate of an increase in the income.

3. Give an intuition of the points in the graph real interest rate - income that DO NOT lie on the LM curve.

4. The more sensible the demand for real money balances to changes in income,

   (a) the bigger the shift of the LM to the right;

   (b) the more horizontal the LM;

   (c) the more vertical the LM;

   (d) the bigger the shift of the LM to the left.

5. Suppose that the demand for real money balances is represented by the liquidity function $L(r)$. If there is an increase in the real interest rate (other things being equal), then

(a) the $L(r)$ shifts to the right;

(b) the $L(r)$ shifts to the left;

(c) the $L(r)$ does not move;

(d) none of the above.

6. The equation of the LM curve represents the relation between

   (a) the money supply and the equilibrium level of the real interest rate in the market for real money balances;

   (b) the money supply and the equilibrium level of income in the market for real money balances;

   (c) the income and the real interest rate at equilibrium in the market for real money balances;

   (d) goods and real money balances at equilbrium in the asset market.

7. Which of these factors causes the LM curve to move?

   (a) A change in the income level.

   (b) A change in the money supply.

   (c) A change in private savings.

   (d) A change in public spending.

8. Under which circumstances does the LM curve become horizontal?

9. Suppose that the demand for real money balances is $M_d/\bar{P} = L(i, Y) = 0.5Y2i$, the income is 3500, and the price level is $\bar{P} = 2$. Compute the money supply $\bar{M}$ that would yield an interest rate of $i = 5$ through the equilibrium of the market for real money balances.

10. Suppose that $L(i, Y) = 100 + 0.3y10i$ and that the equilibrium income is 100. Compute the real money supply necessary to obtain an equilibrium interest rate equal to $i = 3$.

11. Suppose that a closed economy with public sector is characterized as follows: $C = 0.8(1 - t)Y$, $t = 0.25$, $I = 900 - 50i$, $\bar{G} = 800$, $L = 0.25Y - 62.5i$, and $\bar{M}/\bar{P} = 500$.

   (a) Express analytically the IS curve. What does the IS curve represent?

   (b) Express analytically the LM curve. What does the LM curve represent?

   (c) Compute the equilibrium levels of the income and the interest rate.