[Academic Script]

IS-LM Curve - II

Subject: Business Economics

Course: B. A. (Hons.), 3rd Semester, Undergraduate

Paper No. & Title: Paper – 301 Macroeconomics - I

Unit No. & Title: Unit – 2 IS-LM MODEL

Lecture No. & Title: Lecture – 2 IS-LM Curve - II

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1. Introduction

Having learned the derivation of IS-LM curve now we will learn the simultaneous equilibrium in the two independent goods as well as money market. We term this equilibrium as General Equilibrium as it is common for both the markets. General equilibrium is achieved at that point where the IS and LM curve intersects each other. This general equilibrium ensures simultaneously equilibrium of rate of interest which determines the level of investment and hence the equilibrium level of income is derived for given rate of interest.

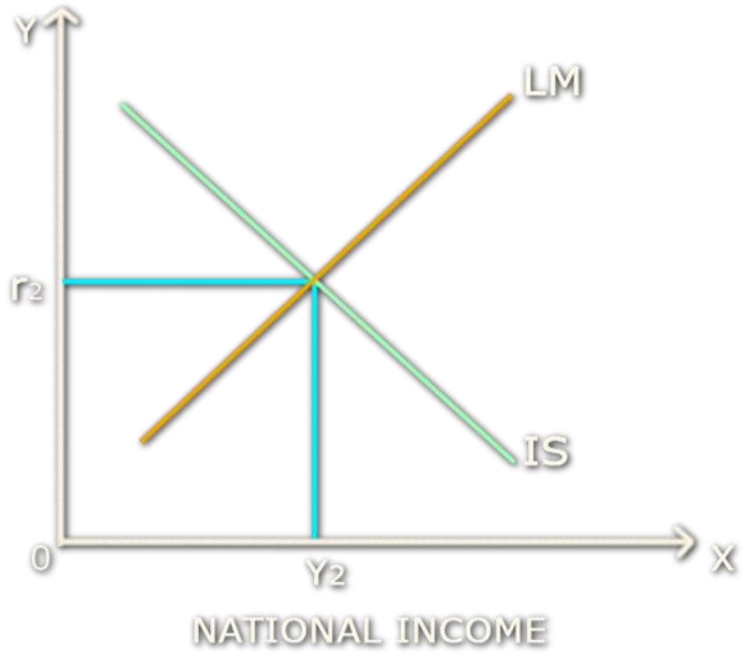
The IS – LM model is based on

1. Investment demand function.
2. The consumption function.
3. The demand for money function.
4. The quantity of money.

The IS and the LM curve relate the two important components i.e.

1. Income
2. Rate of Interest.

Figure:



In the figure given, the equilibrium rate of interest is determined as Or_2 and the level of income determined is OY_2. At this point income & the rate of interest stands in relation to each other such that

- The goods market is in equilibrium that is the aggregate demand equals the level of aggregate output.
- The demand for money is in equilibrium with the supply of money

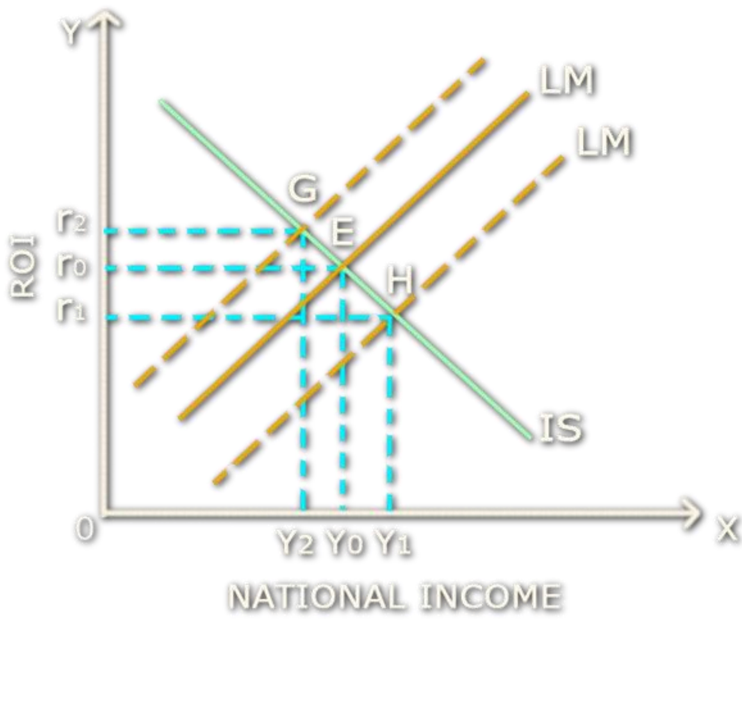
It is noted that in IS-LM curve, the real factors like savings and investments, propensity to consume and propensity to save i.e. consumptions and savings, demand for money and supply of money all these play a very important role in determining the ROI and thereby the level of income. As it is noticed that any changes in above mentioned factors brings shift in either IS curve or LM curve, which in turn brings changes in equilibrium levels of the ROI and income.

IS-LM curve has succeeded in explaining shifts in IS curve due to changes in propensity to consume or save. Also shift in LM curve due to changes in supply of money. We will now learn such shift due to changes in various factors affecting IS-LM curve.

2. Effects of changes in Supply of money on ROI and Income level

Let us consider a situation where the monetary authorities increase the supply of money. As a consequences to same, now more money will be available for speculative motive at a given level of income. Hence we will observe fall in ROI. As a result, LM cure will shift to right and level of income will increase. As given in the figure below, we can observe the equilibrium at point E goes down to point H as there is fall in ROI, and income increases. Contrary to this as ROI increases it is evident that new equilibrium is formed at point G and LM curve shifts to left.

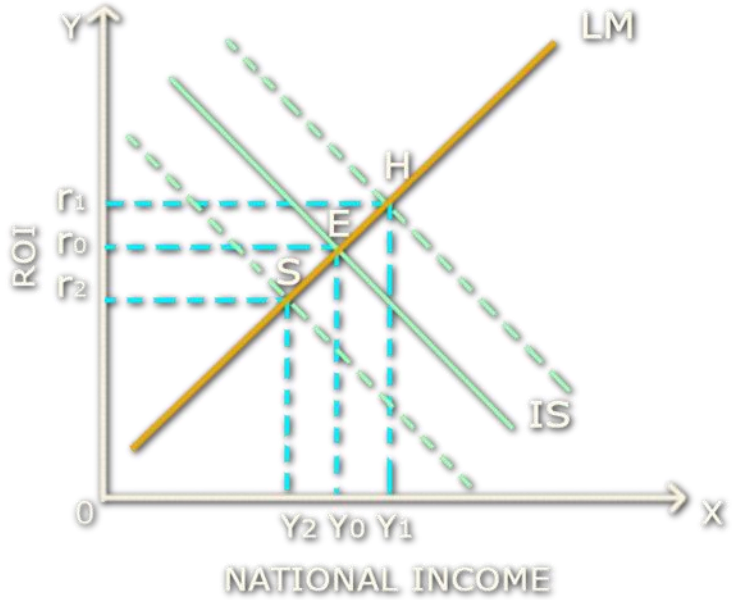
Figure:



3. Changes in the desire to save or propensity to consume

Now, say there is a change in consumption pattern, say the desire to save falls, that is consumption increases, thus the IS curve shifts rightward. With LM curve remaining unchanged, we find a new equilibrium point at H with higher ROI, and higher level of income at each level of rate of interest. Thus, fail in desire to save, increases the ROI and level of income simultaneously.

Figure:

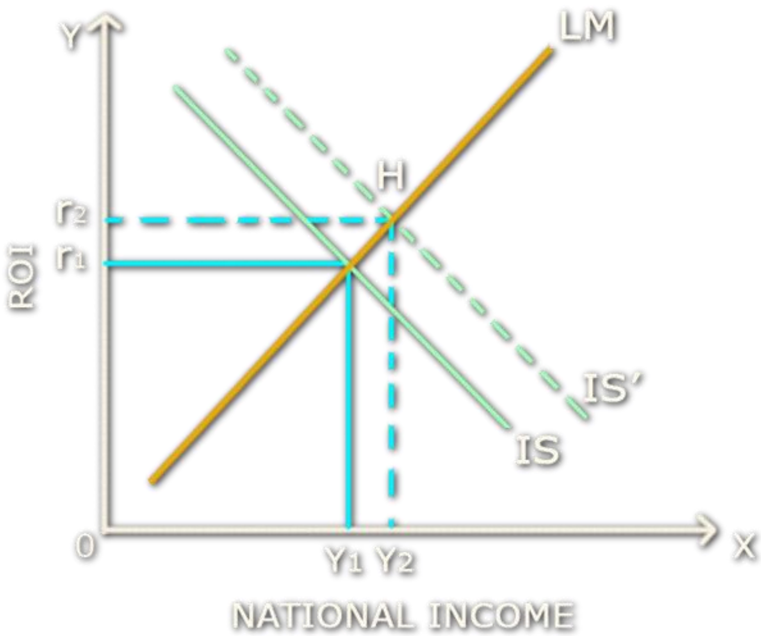


Contrary to the above situation if say that desire to save increases, the propensity to consume reduces. The aggregate demand curve shifts towards left or downward and finally the level of income will reduce at each level of rate of interest. Due to this the IS curve shifts towards left and LM curve remain unchanged.

4. Change in autonomous investment and government expenditure

The changes in autonomous investment and government expenditure is also a cause of shift in IS curve. If there is increase in autonomous investment and government expenditure then the aggregate demand for goods will increase and this brings increase in National Income through the multiplier process given by Keynes. Due to this the IS curve shifts to the right and LM curve remains unchanged. The level of income and rate of interest both increases. This effect can be clearly explained with the help of diagram.

Figure:

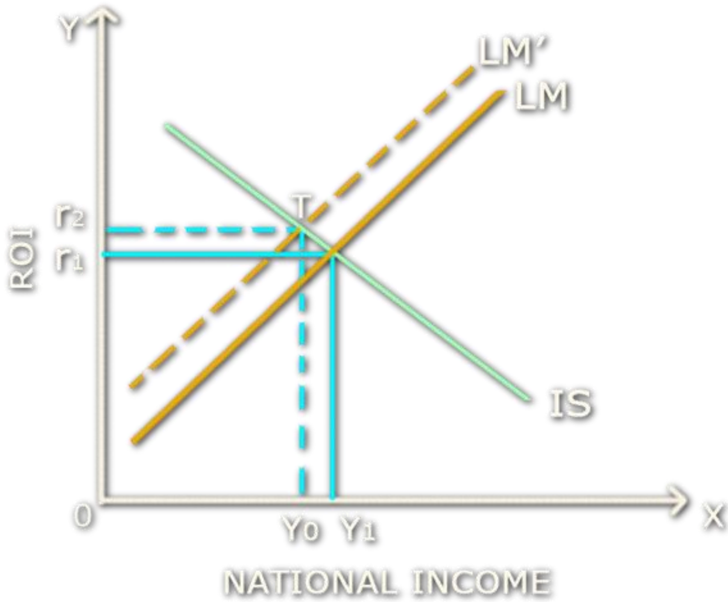


In the above figure the LM curve remains unchanged and the IS curve shifts from IS to IS′ towards right a dotted line as can be seen. The new equilibrium is formed at H where rate of interest increases from r_1 to r_2. The income level also increases from Y_1 to Y_2. Hence, increase in autonomous investment and government expenditure increases the rate of interest and income.

5. Changes in Demand for Money or Liquidity Preference

Changes in demand for money or liquidity preference bring changes in LM curve. If jthere is increase in demand for money or liquidity preference then the LM curve will shift towards left. This happens due to higher demand for moneyh, given supply of money, will raise the rate of interest corresponding to each level of income. Due to this, the LM curve shift the left side and IS curve remains unchanged. The level of equilibrium gets changed. Same is explained with the help of a diagram.

Figure:



The IS curve remains unchanged and LM curve shifts from LM to LM' towards left. The new equilibrium is formed at T where rate of interest increases from r_1 to r_2 and the income level reduces from Y_1 to Y_0. Hence as there is increase in demand for money or liquidity preference then the rate of interest rises and income reduces.

Limitations

1. **Static Theory:** it is the static theory that only explains the short-run behaviour of the economy.
2. **Interest rate not flexible:** The theory is based on the assumption that the interest is flexible and varies with changes in LM and IS.

3. **Investment is not interest elastic:** The theory assumes that investment is interest elastic but in actual it is not.
4. **Highly artificial:** according to Don Patinkin, the Hicks – Hansen theory is highly artificial and over simplified because it divides the economy in real and monetary sector.
5. **Closed model:** According to Prof. Rowan, the Hicks – Hanes theory is a closed model which does not take into consideration the effects of international trade.

In spite of these limitations, the utility of the IS-LM technique is explaining the determination of the interest rate in an economy cannot be undermined.

6. Summary

In this topic we learnt the intersection of IS and LM curve. We also discuss the various factors that causes the shifts in IS and LM curve. We also discussed the effects of such shifts on IS and LM curve and the limitation of the model.