JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Government of Rajasthan established

Through ACT No. 17 of 2008 as per UGC ACT 1956

NAAC Accredited University

Faculty of Education and Methodology

Faculty Name- JV'n Dr. Md Meraj Alam

Program- BA (Hons) Economics 2nd Semester

Course – Macroeconomics II

Digital session name – IS-LM Curve Model: Explaining Role of Government's Fiscal and Monetary Policies

IS-LM Curve Model: Explaining Role of Government's Fiscal and Monetary Policies:

With the help of IS-LM curve model we can explain how the intervention by the Government with proper fiscal and monetary policies can influence the level of economic activity, that is, income and employment level. We explain below the impact of changes in fiscal and monetary policy on the economy in the IS-LM model.

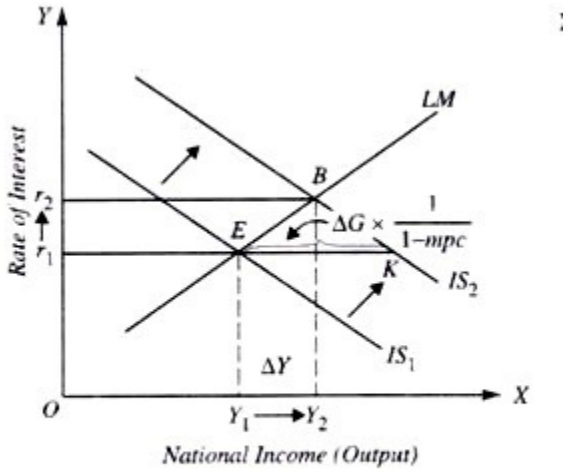

Fig. 24.6. *Impact of Increase in Government Expenditure on Interest rate and Income*

Source: Internet

Effect of Fiscal Policy:

Let us first explain how IS-LM model shows the effect of increase in Government expenditure on level of income. This is illustrated in Fig. 24.6. As explained above, increase in Government expenditure which is of autonomous nature raises aggregate demand for goods and services and thereby causes an outward shift in IS curve, as is shown in Fig. 24.6 where increase in Government expenditure leads to the shift in IS curve from $IS_1$to IS_2 Note that the horizontal distance between the two IS curves is equal to ΔG x 1/1 –MPC which shows the increase in income that occurs in Keynes's multiplier model.

It will be seen from Fig. 24.6 that with the LM curve remaining unchanged, the new IS_2 curve intersects LM curve at point B. Thus, in IS-LM model with the increase in Government expenditure (AG), the equilibrium moves from point E to B and with this the rate of interest rises from r_1 to r_2 and income level from Y_1 to Y_2. Thus, IS-LM model shows that expansionary fiscal policy of increase in Government expenditure raises both the level of income and rate of interest.

It is worth noting that in the IS-LM model increase in national income by Y_1Y_2 in Fig. 24.6 is less than EK which would occur in Keynes's model. This is because Keynes in his simple multiplier model (popularly called Keynesian cross model) assumes that investment is fixed and autonomous, whereas IS-LM model takes into account the fall in private investment due to the rise in interest rate that takes place with the increase in Government expenditure. That is, increase in Government expenditure crowds out some private investment.

Likewise, it can be illustrated that the reduction in Government expenditure will cause a right- ward shift in the IS curve, and given the LM curve unchanged, will lead to the fall in both rate of interest and level of income. It should be noted that Government often cuts expenditure to control inflation in the economy.

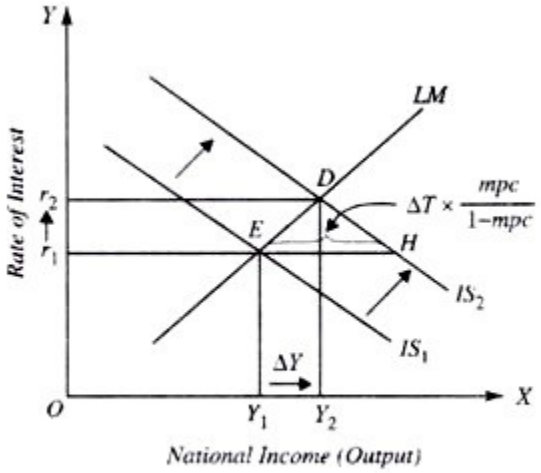

Fig. 24.7. *Effect of Cut in Taxes*

Source: Internet

Reduction in Taxes:

An alternative measure of expansionary fiscal policy which may be adopted is the reduction in taxes which through increase in disposable income of the people raises consumption demand of the people. As a result, cut in taxes causes a shift in the IS curve to the right as is shown in Fig. 24.7, from IS_1 to IS_2. It may however noted that in the Keynesian multiplier model, the horizontal shift in the IS curve is determined by the value of tax multiplier which is equal to ΔT x MPC/1 – MPC and causes level of income to increase by EH.

However, in the IS-LM model, with the shift of the IS curve from IS_1 to IS_2 following the reduction in taxes, the economy moves from equilibrium point E to D and as is evident from Fig. 24.7, rate of interest rises from r_1 to r_2 and level of income increases from Y_1 to Y_2.

On the other hand, if the Government intervenes in the economy to reduce inflationary pressures, it will raise the rates of personal taxes to reduce disposable income of the people. Rise in personal taxes will lead to the decrease in aggregate demand. Decrease in aggregate demand will help in controlling inflation. This case can also be shown by IS-LM curve model.

Impact of Monetary Policy:

Through making appropriate changes in monetary policy the Government can influence the level of economic activity. Monetary policy may also be expansionary or contractionary

depending on the prevailing economic situation. IS-LM model can be used to show the effect of expansionary and tight monetary policies. As has been explained above, a change in money supply causes a shift in the LM curve; expansion in money supply shifts it to the right and decrease in money supply shifts it to the left.

Suppose the economy is in grip of recession, the Government (through its Central Bank) adopts the expansionary monetary policy to lift the economy out of recession. Thus, it takes measures to increase the money supply in the economy. The increase in money supply, state of liquidity preference or demand for money remaining unchanged, will lead to the fall in rate of interest.

At a lower interest there will be more investment by businessmen. More investment will cause aggregate demand and income to rise. This implies that with expansion in money supply LM curve will shift to the right as is shown in Fig. 24.8.

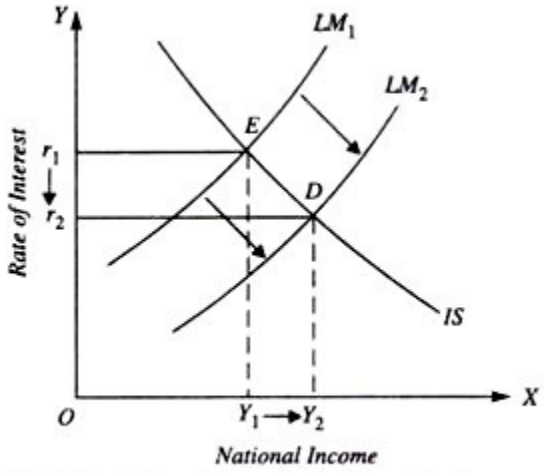

Fig. 24.8. *Effect of Expansion in Money Supply on Interest Rate and Income*

Source: Internet

As a result, the economy will move from equilibrium point E to D and with this the rate of interest will fall from r_1 to r_2 and national income will increase from Y_1 to Y_2.Thus, IS-LM model shows the expansion in money supply lowers interest rate and raises income.

We have also indicated what is called monetary transmission mechanism, that is, how IS-LM curve model shows the expansion in money supply leads to the increase in aggregate demand for goods and services. We have thus seen that increase in money supply lowers the rate of

interest which then stimulates more investment demand. Investment demand through multiplier process leads to a greater increase in aggregate demand and national income.

If the economy suffers from inflation, the Government will like to check it. Then its Central Bank should adopt tight or contractionary monetary policy. That is, it should reduce the money supply. IS-LM model can be used to show, as we have seen above in case of expansionary monetary policy, that reduction in money supply will cause a leftward shift in LM curve and will lead to the rise in interest rate and fall in the level of income.

Critique of the IS-LM Curve Model:

The IS-LM curve model makes a significant advance in explaining the simultaneous determination of the rate of interest and the level of national income. It represents a more general, inclusive and realistic approach to the determination of interest rate and level of income.

Further, the IS-LM model succeeds in integrating and synthesising fiscal with monetary policies, and theory of income determination with the theory of money. But the IS-LM curve model is not without limitations.

Firstly, it is based on the assumption that the rate of interest is quite flexible, that is, free to vary and not rigidly fixed by the Central Bank of a country. If the rate of interest is quite inflexible, then the appropriate adjustment explained above will not take place.

Secondly, the model is also based upon the assumption that investment is interest-elastic, that is, investment varies with the rate of interest. If investment is interest-inelastic, then the IS-LM curve model breaks down since the required adjustments do not occur.

Thirdly, Don Patinkin and Milton Friedman have criticised the IS-LM curve model as being too, artificial and over-simplified. In their view, division of the economy into two sectors – monetary and real – is artificial and unrealistic. According to them, monetary and real sectors are quite interwoven and act and react on each other.

Further, Patinkin has pointed out that the IS-LM curve model has ignored the possibility of changes in the price level of commodities. According to him, the various economic variables

such as supply of money, propensity to consume or save, investment and the demand for money not only influence the rate of interest and the level of national income but also the prices of commodities and services.

Patinkin has suggested a more integrated and general equilibrium approach which involves the simultaneous determination of not only the rate of interest and the level of income but also of the prices of commodities and services.

Course Outcome: The goal of this paper will be to expose the students to the basic principles of macroeconomics. The emphasis will be on thinking like an economist and course will illustrate how economic concepts can be applied to analyse real-life situations. In this course, the students are introduced to money and interest, theories of inflation, rate of interest, trade cycle and growth models.