

Quadrant II – Notes

Paper Code: CEG 102

Module Name: Mundell – Fleming Model (IS-LM-BP) Model Part I

Module No: 23

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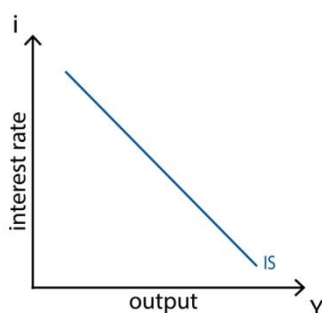
- **Meaning of Mundell – Fleming Model**
- **Understand the meaning of IS-LM-BP curves**

The IS-LM-BP model (also known as IS-LM-BoP or Mundell-Fleming model) is an extension of the IS-LM model, which was formulated by the economists Robert Mundell and Marcus Fleming, who made almost simultaneously an analysis of open economies in the 60s. It is a version of the IS-LM model for an open economy. In addition to the balance in goods and financial markets, the model incorporates an analysis of the balance of payments.

IS curve: the market for goods and services: In an open economy, the equilibrium condition in the market for goods is that production (Y), is equal to the demand for goods, which is the sum of consumption, investment, public spending and net exports. This relationship is called IS. If we define consumption (C) as $C = C(Y-T)$ where T corresponds to taxes, the equilibrium would be given by: $Y = C(Y-T) + I + G + NX$

With regard to interest rates, the higher they are, the more expensive investments are, hence the relationship between interest rates and investment is negative. Since there are net exports, the exchange rates, which directly affect net exports, have to be taken into account. Let's say e is the domestic price of foreign currency or, in other words, how many units of our own currency have to be given up to receive 1 unit of the foreign currency. The new

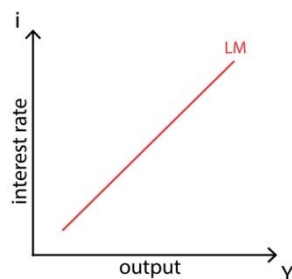
relationship is expressed as follows (where i is the interest rate): $Y = C(Y-T) + I(Y, i) + G + NX(e)$



The IS curve represents the value of equilibrium in the goods market for any interest rate. An increasing interest rate will cause a reduction in production

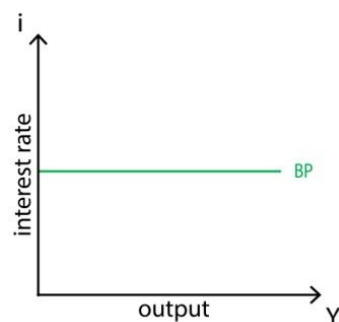
through its effect on investment. Therefore, the curve has a negative slope.

LM curve: the market for money: The LM curve represents the relationship between liquidity and money. In an open economy, the interest rate is determined by the equilibrium of supply and demand for money: $M/P=L(i,Y)$ considering M the amount of money offered, Y real income and i real interest rate, L being the demand for money, which is function of i and Y . Also, the exchange rate must be analysed since it affects money demand (investors may decide buy or sell bonds in a country depending on the exchange rate).



The equilibrium of the money market implies that, given the amount of money, the interest rate is an increasing function of the output level. When output increases, the demand for money raises, but since money supply is given. Therefore, the interest rate should rise until the opposite effects acting on the demand for money are cancelled, people will demand more money because of higher income and less due to rising interest rates. The slope of the curve is positive, because the slope reflects the positive relationship between output and interest rates.

BP curve: The Balance of payments



The BP curve shows at which points the balance of payments is at equilibrium. It shows combinations of production and interest rates that guarantee that the balance of payments is viably financed, which means that the volume of net exports that affect total production must be consistent with the volume of net capital outflows. Any point above the BP curve will mean a balance of payments surplus. Any points below the BP curve will mean a balance of payments deficit.