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ECONOMICS

INTERNATIONAL ECONOMICS

MJC - 10

Unit - 3

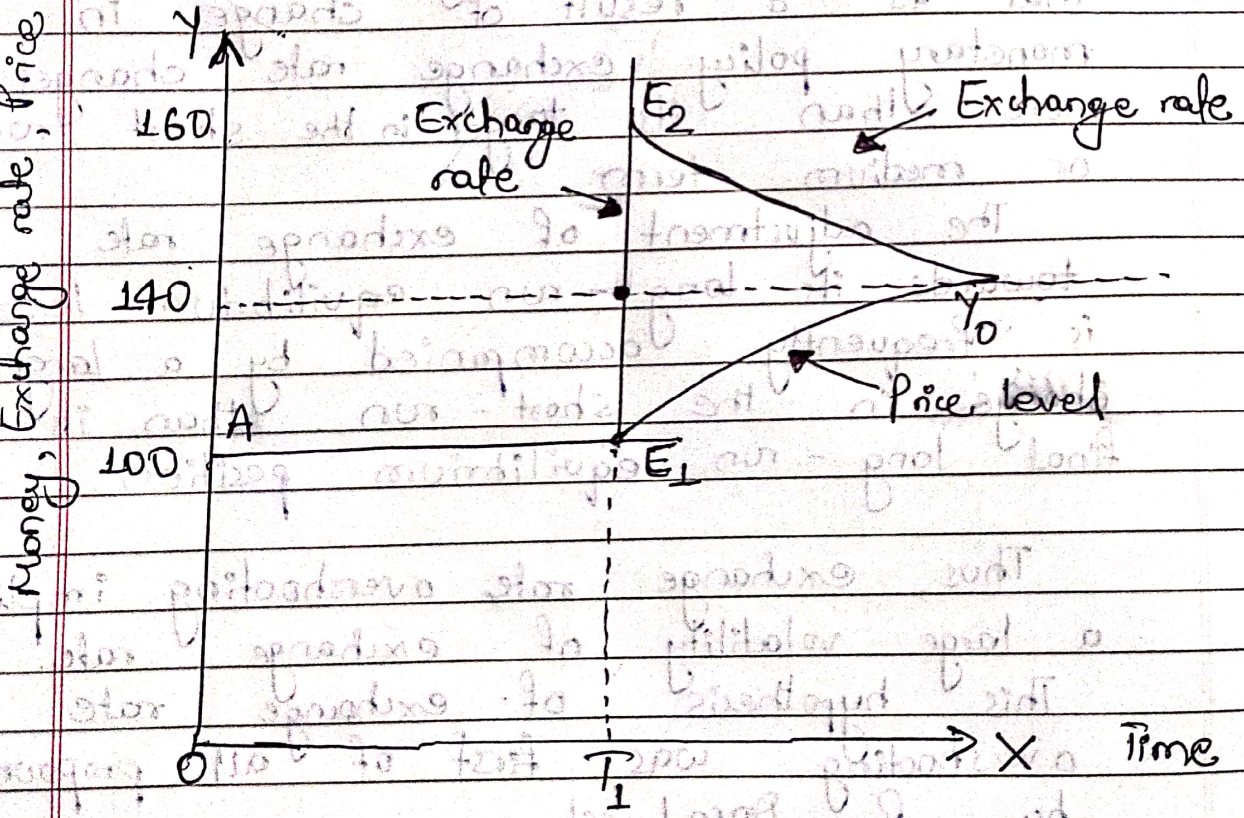
DORNBUSCH'S OVERSHOOTING MODEL

Overshooting of exchange rate means that as a result of changes in monetary policy exchange rate changes more than its target in the short run or medium term.

The adjustment of exchange rate towards its long-run equilibrium level is frequently accompanied by a larger change in the short-run than its final long-run equilibrium position.

Thus, exchange rate overshooting implies a large volatility of exchange rate. This hypothesis of exchange rate overshooting was first of all propounded by R. Dornbusch.

When interest rate falls due to expansion in money supply, the nominal exchange rate rises immediately (i.e., domestic currency depreciates quickly) but prices rise only gradually. Therefore, in the short run, relative prices of the home country fall resulting in more exports and less imports. But in the long run, when price rise, change in nominal exchange rate is somewhat reversed so that ultimately it reaches its new long-run equilibrium level which is less than it reached in the short or medium term but is higher than the initial level before the expansion in money supply.



The time paths of the nominal money supply, exchange rate and price level is measured along Y-axis and time along X-axis

Initially, the economy is in long-run equilibrium at point E_1 where the index of each of the variable considered here is equal to 100.

If at time T_1, money supply is increased by 40% and remain at that higher level as shown by the dotted line at 140. As a result of 40% expansion in money supply, exchange rate of home currency immediately depreciates and in fact exchange rate increases more than the expansion in money supply and in fig. this has been shown to have risen to 160 or to point E_2, i.e., 60% rise as compared to 40% inc in money supply.

At time T_1, with the rise in exchange rate, exports of the home country increases and imports decrease and therefore national output increases beyond the full-employment level. As a result, price level rises in the home country that results in decrease in real money balances.

It follows from above that exchange rate is highly volatile.