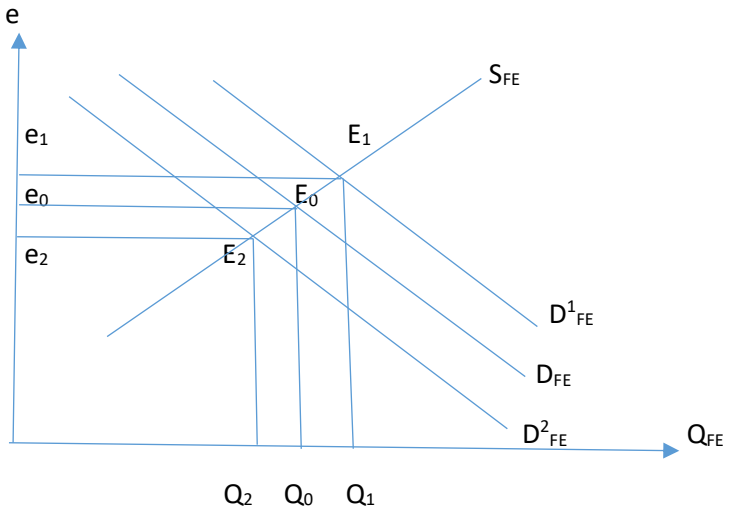
Equilibrium in Foreign Exchange Market

Figure 1

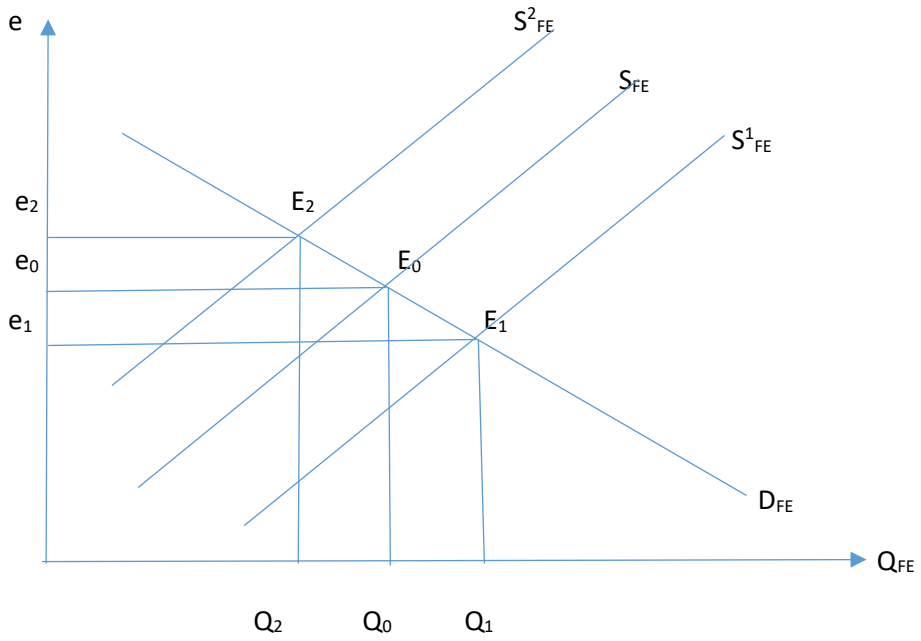


In Figure 1, we demonstrate the demand for foreign exchange D_{FE}, and supply of foreign exchange S_{FE} in the foreign exchange market, and how they together determine the equilibrium exchange rate e. The exchange rate is defined to be the amount of domestic currency required to purchase a unit of foreign currency. It could thus be considered to be the price of foreign currency.

The demand for foreign exchange curve is downward slopping. The reason being as the price of foreign exchange, i.e., the exchange rate increases, it is more expensive to purchase foreign exchange. Hence the demand for foreign exchange falls. The supply of foreign exchange is upward slopping. The reason being, as the price of foreign exchange increases, the suppliers can now earn more for every unit of foreign exchange sold. Hence the supply of foreign exchange increases in the foreign exchange market. The two curves intersect at the point E_0 establishing equilibrium in the foreign exchange market. If for any reason other than changes in exchange rate (e.g., increase in income of individuals leading to demand for more imported goods or more travel abroad), the demand for foreign exchange increases, we will observe a right ward shift of the demand for foreign exchange curve to D^1_{FE}, with the new equilibrium at E_1. The equilibrium exchange rate increases to e_1 and the quantity of foreign exchange demanded and supplied in the market increases to Q_1. This increase in exchange rate in the foreign exchange market is termed as depreciation of domestic currency. It now takes more units of domestic currency to purchase a unit of foreign currency. The domestic currency hence loses value in the international market.

Similarly, if for any reason other than changes in exchange rate, the demand for foreign exchange decreases, we will observe a leftward shift of the demand for foreign exchange curve to D^2_{FE}, with the new equilibrium at E_2. The equilibrium exchange rate decreases to e_2 and the quantity of foreign exchange demanded and supplied in the market decreases to Q_2. This decrease in exchange rate in the foreign exchange market is termed as appreciation of domestic currency. Less units of domestic currency would now be required to purchase a unit of foreign currency. Hence domestic currency gains value in the international market.

Figure 2



In Figure 2, we represent, what happens to the equilibrium in the foreign exchange market, if the supply of foreign exchange increases or decreases due to factors other than changes in exchange rate. If the supply increases, the supply of foreign exchange curve shifts right to S^1_{FE}, with the new equilibrium at E_1. Equilibrium exchange rate falls to e_1 (appreciation of domestic currency) and the quantity demanded and supplied of foreign exchange rises to Q_1. If the supply decreases, the supply of foreign exchange curve shifts left to S^2_{FE}, with the new equilibrium at E_2. Equilibrium exchange rate rises to e_2 (depreciation of domestic currency) and the quantity demanded and supplied of foreign exchange falls to Q_2.