

FLEXIBLE EXCHANGE RATES

1. Purchasing Power Parity

$$P_x = SP_x^* \quad S = \text{exchange rate}$$

2. Interest Parity (Covered, Uncovered)

$$1 + i_t = (1 + i_t^*) \frac{S_{t+1}}{S_t}$$

3. Money Market Equilibrium

$$\frac{M}{P} = L \left(\overset{-}{i}_t, \overset{+}{Y}_t \right)$$

4. Approximating Interest Parity:

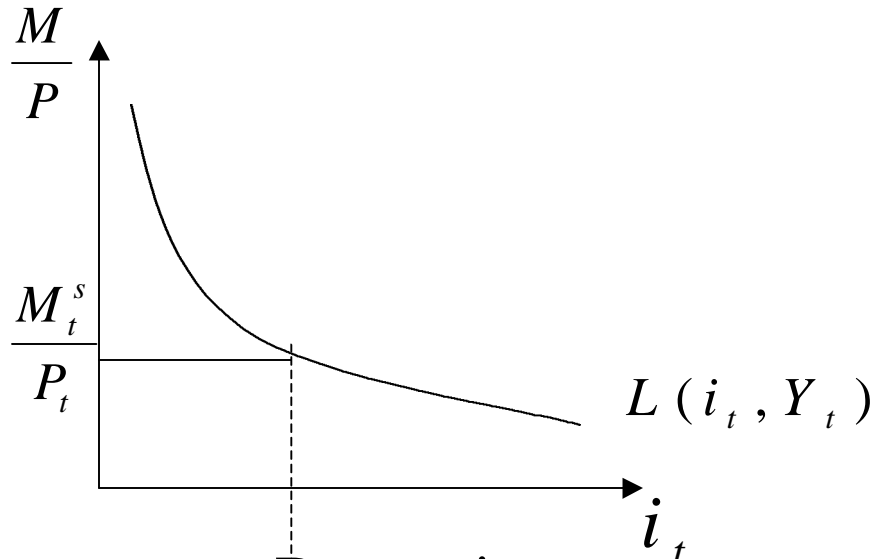
i_t, i_t^* = overnight interest rates

$$(1 + i_t \Delta t) = (1 + i_t^* \Delta t) \frac{S_{t+\Delta t}}{S_t}$$

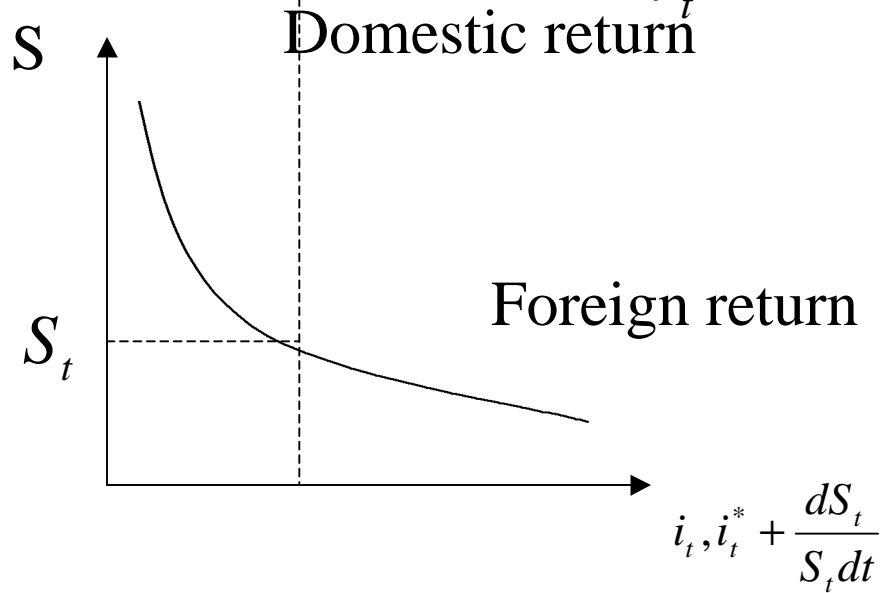
$$(i_t - i_t^* \frac{S_{t+\Delta t}}{S_t}) \Delta t = \frac{S_{t+\Delta t}}{S_t} - 1 = \frac{S_{t+\Delta t} - S_t}{S_t}$$

Dividing by Δt and letting $\Delta t \rightarrow 0$

$$i_t - i_t^* = \frac{d \log S_t}{dt} = \frac{dS_t}{S_t dt} \quad (\text{exchange rate depreciation})$$



$\{Y_t, M_t^s, P_t\}$ are given



(i_t^*, S_{t+1}) are given

$\{S_t, i_t\}$ are endogenous variables