Lecture 18

Chapter 19: Open Economy Macro: Flexible Exchange Rates

- Supply and demand for a currency
- Effects on supply and demand for a currency: PPP and relative interest rates
- Effects of exchange rates on the economy: GDP, inflation, current account (J curve)
- AS/AD model with flexible exchange rates

- $e = lc/\$$—how much local currency one dollar can buy
- e increasing is a depreciation of lc, appreciation of \$.
- e decreasing is an appreciation of lc, depreciation of \$.
- Japan = 106.0
- Euroland = 0.91
- England = 0.80

AS/AD MODEL WITH FLEXIBLE EXCHANGE RATES

- $Y_d \equiv Y - T$ Definition
- $C = a + bY_d$ Behavioral (households)
- $I = d - e \cdot r$ Behavioral (firms)
- $Y = C + I + G + EX - IM$ Equilibrium condition
- $TAX = tY$ Behavioral (government)
- $T \equiv TAX - TR$ Definition
- $P = \delta + \epsilon Y + \zeta PM$ Behavioral (AS curve, firms)
- $r = \alpha Y + \beta P + \gamma Z$ Behavioral (Fed rule)

- $IM = \theta + mY + \psi \frac{P}{PM}$ Import demand (households, firms, government)
- $PM \equiv \frac{1}{e} P^*$ Definition
- $EX \equiv \frac{1}{e} IM^*$ Definition
- $e = k_0 + k_1 \frac{r}{r^*} + k_2 \frac{P^*}{P}$ Behavioral (market determined exchange rate)

Exogenous variables are $G, TR, t, Z, G^*, TR^*, t^*, Z^*$.

PPP : $P^* = eP$ $\left(k = \frac{k_c}{\$} \cdot \$\right)$

r vs r^* : $\frac{r}{r^*} \uparrow \rightarrow e \uparrow$ (depreciation of $/c)

AS/AD analysis :

$e \downarrow \rightarrow PM \uparrow \rightarrow P \uparrow$

$\rightarrow IM \downarrow \rightarrow Y \uparrow$

$\rightarrow PM^* \downarrow \rightarrow EX \uparrow \rightarrow Y \uparrow$ $\quad [PM^* = e \cdot P]$

$\uparrow$ probably $\quad \downarrow \uparrow$

Monetary policy

say $r \downarrow \rightarrow e \downarrow \rightarrow Y \uparrow \rightarrow P \uparrow$

$\rightarrow P \uparrow$ $\quad$ e helps

Fiscal policy

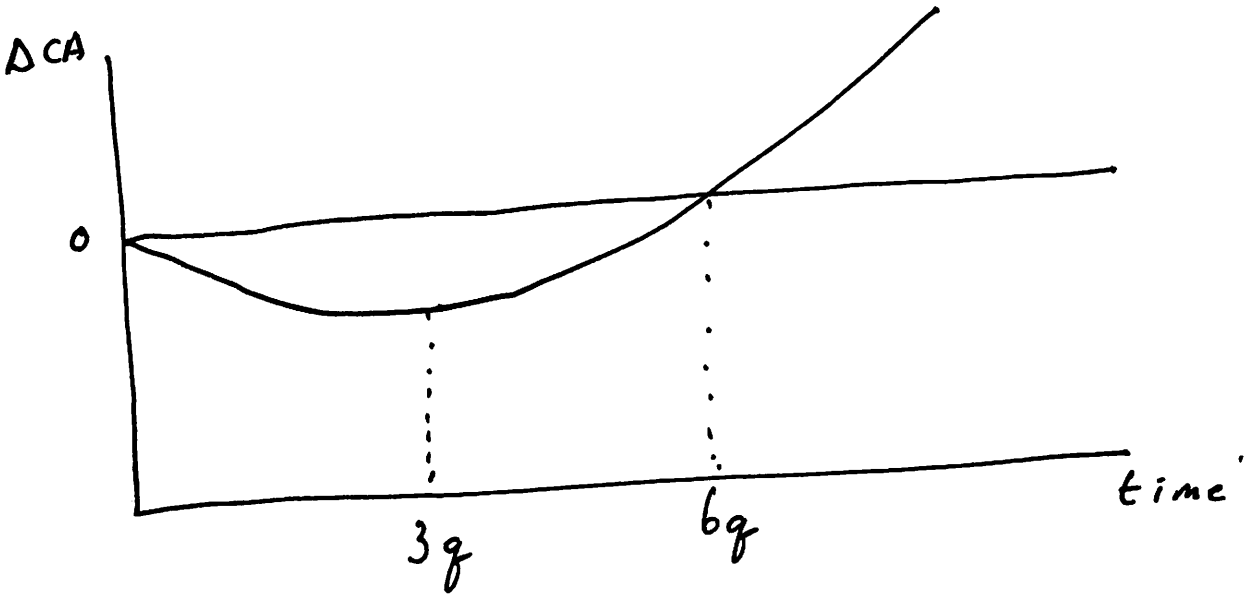
say $G \uparrow \rightarrow r \uparrow \rightarrow e \uparrow \rightarrow Y \downarrow \rightarrow P \downarrow$

$\rightarrow P \downarrow$ $\quad$ e hurts

J - curve

$$CA = P \cdot EX - PM \cdot IM$$

$$PM = \frac{1}{e} P^*$$



e ↓

$$CA = \overset{\oplus}{P} \cdot \overset{\oplus}{EX} - \overset{\oplus}{PM} \cdot \overset{\ominus}{IM}$$

↑

largest in short run