

AGGREGATE DEMAND IN THE OPEN ECONOMY

1. Aggregate Demand in the Open Economy

- Mondell-Fleming Model: an international version of the IS-LM model
 - The SR model of national income including the effects of international trade and finance
 - The behavior of an economy depends on the exchange-rate system it has adopted

2. The Mundell-Fleming Model

- The key assumption: *small open economy with perfect capital mobility*
 - the interest rate in this economy is determined by the world interest rate ($r = r^*$)

(1) The Goods Market and the IS Curve*

- The goods market:

$$\rightarrow Y = C(Y - T) + I(r^*) + G + NX(e)$$

- $NX(\varepsilon) \rightarrow NX(e)$

b/c price levels at home and abroad are fixed

- The IS* curve slopes downward (fig. 12-1)

$$\text{b/c } e \uparrow \rightarrow NX \downarrow \rightarrow Y \uparrow$$

(2) The Money Market and the LM Curve*

- LM* curve: $\left(\frac{M}{P}\right) = L(r^*, Y)$

\rightarrow “vertical” b/c the exchange rate does not enter into the LM curve (fig. 12-2)

(3) Equilibrium

- Goods market equilibrium condition: IS* curve
- Money market equilibrium condition: LM* curve

\rightarrow Equilibrium exchange rate & income (fig.12-3)

- Exogenous variables: G, T, M, P, r^*
- Endogenous variables: e, Y

3. The Small Open Economy under Fixed Exchange Rates

- Bretton Woods system: an international monetary system under which most governments agree to fix exchange rates in the 1950s and 1960s.
- How a Fixed-Exchange-Rate System Works
 - The commitment of the central bank to allow the money supply to adjust to whatever level will ensure that the equilibrium exchange rate equals the announced exchange rate
 - The fixed exchange rate governs the money supply (fig. 12-7)

(1) Fiscal Policy (fig. 12-8)

- Expansionary fiscal policy $\rightarrow Y \uparrow$
 - $\text{equil. } e > \text{fixed } e \rightarrow M \uparrow \rightarrow \text{equil. } e = \text{fixed } e$
- cf) the closed economy: $G \uparrow \rightarrow Y \uparrow$

(2) Monetary Policy (fig. 12-9)

- Expansionary monetary policy \rightarrow no effect on
 - $\text{equil. } e < \text{fixed } e \rightarrow M \downarrow \rightarrow \text{equil. } e = \text{fixed } e$
- cf) the closed economy: $M \uparrow \rightarrow r \downarrow \rightarrow I \uparrow \rightarrow Y \uparrow$

(3) Trade Policy

- Trade restrictions (Tariff or import quota) $\rightarrow Y \uparrow$
 $\rightarrow NX \uparrow$
 $\rightarrow \text{equil. } e > \text{fixed } e$
 $\rightarrow M \uparrow \rightarrow \text{equil. } e = \text{fixed } e$

4. The Small Open Economy under Floating Exchange Rates

- Floating exchange rates: the exchange rate is allowed to fluctuate freely in response to changing economic conditions

(1) Fiscal Policy (fig. 12-4)

- Expansionary fiscal policy $\rightarrow e \uparrow$ & no effect on Y
 - $e \uparrow$ b/c capital flows in from abroad (upward pressure on domestic interest rate)
 \rightarrow the relative price of domestic goods \uparrow
 $\rightarrow NX \downarrow$ offsets the effects of the expansionary fiscal policy on income
- cf)* the closed economy: $G \uparrow \rightarrow Y \uparrow$

(2) Monetary Policy (fig. 12-5)

- Expansionary monetary policy $\rightarrow e \downarrow$ & $Y \uparrow$
 - $e \downarrow$ b/c capital flows out of the economy
(downward pressure on domestic interest rate)
 - \rightarrow the relative price of domestic goods \downarrow
 - $\rightarrow NX \uparrow \rightarrow Y \uparrow$
- cf) the closed economy: $M \uparrow \rightarrow r \downarrow \rightarrow I \uparrow \rightarrow Y \uparrow$

(3) Trade Policy (fig. 12-6)

- Trade restrictions (Tariff or import quota)
 - $\rightarrow NX \uparrow \rightarrow e \uparrow$ & no effect on Y

5. Should Exchange Rates Be Floating or Fixed?

- Most economists have favored a system of floating exchange rates
- In recent years, some have advocated a return to a fixed exchange rate
- The role of monetary policy
 - Fixed rates: the single goal of maintaining the exchange rate at its announced level
 - Floating rates: monetary policymakers free to pursue other goals; stabilizing employment (output) or price

- Advocates of fixed exchange rates
 - EXRA uncertainty makes int'l trade more difficult
 - Irrational and destabilizing speculation by int'l investors

6. The Mundell-Fleming Model with a Changing Price

$$\text{IS}^*: Y = C(Y - T) + I(r^*) + G + NX(e)$$

$$\text{LM}^*: \left(\frac{M}{P}\right) = L(r^*, Y)$$

- Aggregate Demand: negative relationship b/t P and Y

$$P \downarrow \rightarrow \left(\frac{M}{P}\right) \uparrow \rightarrow \text{LM}^* \text{ shifts to the right (fig. 12-12)}$$

$$\rightarrow e \downarrow \text{ \& } Y \uparrow$$

- SR and LR equilibria in a small open economy (fig. 12-13)