

Chapter 9: International Economics

- **Introduction to international trade**
- **Balance of Payments**
- **Market for foreign exchange**

9.1 Introduction to international trade

9.1.1 Reasons for trade

(1) The production cost of the same commodity in each country is not equal

(2) Comparative advantages

9.1 Introduction to international trade

9.1.2 Gains from trade

- (1) Welfare gains
- (2) Economies of scale
- (3) Technology transfer

9.1 Introduction to international trade

9.1.3 Trade barriers

- (1) Tariff barrier
- (2) Non-tariff barrier

9.1.4 Trade agreement

- (1) Bilateral agreement
- (2) Multilateral agreement

9.2 Balance of payments (BOP)

Balance of Payments:

- The record of a country **transactions** in goods, services, and assets with the rest of the world
- The record of a country's sources (supply) and uses (demand) of foreign exchange

9.2 Balance of payments (BOP)

9.2.1 Composition of BOP account

- 1. Current Account**
- 2. Capital and Financial Account**
- 3. Errors and Omissions**
- 4. International Reserve Account**

Example of Balance of Payment (units: million US dollars)

	2007 p	2008 p	2009 p
Current account	15,681.73	1,633.00	20,290.90
a. Goods and services	18,703.21	4,934.85	24,916.72
1. Goods	12,782.03	108.09	19,416.41
Exports (f.o.b.)	151,258.35	175,233.06	150,883.04
Imports (c.i.f.)	-138,476.31	-175,124.97	-131,466.62
Of which: Non-monetary gold	-1,635.98	-6,068.98	-3,785.31
2. Services	5,921.17	4,826.76	5,500.31
Services receipts	30,361.92	33,399.57	30,200.07
Services payments	-24,440.74	-28,572.81	-24,699.75
b. Income	-6,960.39	-8,072.30	-9,116.48
Income receipts	7,331.98	7,130.71	5,030.48
Income payments 4/	-14,292.38	-15,203.02	-14,146.96
c. Current transfers	3,938.91	4,770.45	4,490.66
Capital and financial account	-2,623.78	14,603.70	-1,199.44
a. Capital account 6/	0.00	0.00	0.00
b. Financial account	-2,623.78	14,603.70	-1,199.44
1. Direct investment 3/	8,465.85	6,002.05	2,118.39
(1) Abroad	-2,864.34	-2,568.41	-3,835.90
(2) In reporting economy	11,330.19	8,570.46	5,954.32
2. Portfolio investment	-6,726.91	-2,080.36	-9,211.68
3. Other investment	-4,362.72	10,682.01	5,893.84
Errors and omissions	4,044.25	8,456.58	5,035.12
Overall balance	17,102.20	24,693.30	24,126.60
Reserve assets	17,102.20	24,693.30	24,126.60

Example of Balance of Payment (units: Millions of US Dollars)

	2016	2017	2018	2019 p	2020 p
Current account	43,438.00	43,951.86	28,422.53	38,205.56	16,298.30
a. Goods and services	56,051.04	56,877.04	44,922.18	51,047.44	24,665.85
1. Goods	35,776.08	32,581.23	22,387.66	26,724.51	39,820.32
Exports (f.o.b.)	213,487.50	233,688.04	251,108.13	242,700.80	226,715.86
Imports (c.i.f.)	177,711.42	201,106.81	228,720.47	215,976.29	186,895.53
Of which: Non-monetary gold	5,427.82	9,953.45	10,216.41	6,805.18	4,540.30
2. Services	20,274.95	24,295.80	22,534.52	24,322.93	-15,154.47
Services receipts	63,786.40	70,964.14	77,473.63	81,177.53	31,703.30
Services payments	43,511.45	46,668.34	54,939.11	56,854.60	46,857.77
b. Primary Income	-19,427.48	-20,461.76	-24,514.67	-20,020.73	-14,244.71
c. Secondary Income	6,814.45	7,536.59	8,015.02	7,178.85	5,877.16
General government	12.91	17.64	46.23	69.31	87.23
Other sectors (transfers)	6,801.53	7,518.95	7,968.79	7,109.54	5,789.93
Capital and financial account	-20,181.90	-10,647.48	-13,814.19	-15,651.94	-3,544.98
a. Capital account	12.72	-140.94	-610.54	4.01	43.12
b. Financial account	-20,194.62	-10,506.54	-13,203.65	-15,655.96	-3,588.10
1. Direct investment	-9,906.45	-5,931.88	-4,181.66	-5,327.52	-22,815.32
2. Portfolio investment	-2,797.62	-2,151.55	-5,863.82	-8,643.78	-11,612.95
3. Financial derivatives	303.31	118.29	133.78	822.11	-160.78
4. Other investment	-7,793.85	-2,541.40	-3,291.95	-2,506.77	31,000.94
Net errors and omissions	-10,411.60	-7,347.68	-7,341.98	-8,970.67	5,600.16
Overall balance	12,844.50	25,956.70	7,266.36	13,582.95	18,353.47
Reserve assets	12,844.50	25,956.70	7,266.36	13,582.95	18,353.47

1. Current Account

Composition of current account

1.1 Trade in good account: record of foreign exchange receive and payment from the country's export and import of good

--- Trade in good account balance ---

1.2 Trade in service account: record of foreign exchange receive and payment from the country's export and import of services (such as, transportation, travel, government service and other services)

--- Trade in service account balance ---

1. Current Account

1.3 Income Account: record of foreign exchange income receipts and income payments from compensation of employees and investment income (such as dividends, interest, rent, and profits)

--- Income account balance ---

1.4 Transfer Account: record of transfer receive and payment from private and government sectors (such as, parents transfer money to children staying abroad, donation from Thai government to other countries, and donation of other countries to Thailand)

--- Transfer account balance ---

1. Current Account

1.1 Trade in good account \longleftrightarrow **Trade in good account balance**

1.2 Trade in service account \longleftrightarrow **Trade in service account balance**

1.3 Income Account \longleftrightarrow **Income account balance**

1.4 Transfer Account \longleftrightarrow **Transfer account balance**

--- Current Account ----

2. Capital and Financial Account

2.1 Capital Account

- Cancellation of debt by creditors
- Money transfer by refugees, assets/liabilities that are not for production or investment

--- Capital account balance ---

2. Capital and Financial Account

2.2 Financial Account

- Direct Investment: such as building a factory
- Portfolio Investment
- Other Investment: such as trade credit, international loans and deposits

--- Financial account balance---

2. Capital and Financial Account

2.1 Capital account \longleftrightarrow Capital account balance

2.2 Financial account \longleftrightarrow Financial account balance

--- Capital and financial account ---

3. Errors and Omission

From data correction errors, incomplete data collection due to several obstacles and problems such as tariff avoiding trade, trade in drug, money laundry, statistics of foreigner spending in Thailand etc.

4. International Reserve Account

- Shows changes of the country international reserve during one period resulting from the adjustment of difference between total receipt and payment of foreign exchange for current account and capital and financial account.

- International reserve consist of

Gold, major foreign currency, foreign currency assets, special drawing right (SDR) and reserve with the IMF

Note: SDRs are potential claims on the freely usable currencies of IMF members.

SDRs are used as a unit of account by the IMF and several other international organizations.

Balance of payments (BOP)

Composition of BOP account

- 1. Current Account**
- 2. Capital and Financial Account**
- 3. Errors and Omissions**
- 4. International Reserve Account**

Balance of Payments

Current account + capital and financial account + errors and omissions > 0

→ surplus BOP → International reserve increase

Current account + capital and financial account + errors and omissions < 0

→ deficit BOP → International reserve decrease

9.3 Relationship between differences in saving and investment and current A/C

$$Y = \text{DAE}$$

$$\cancel{C} + S + T = \cancel{C} + I + G + X - M$$

$$(S - I) + (T - G) + (M - X) = 0$$

private
saving

public
saving

foreign
saving

9.4 Foreign Exchange Rate

9.4.1 Meaning and importance of foreign exchange rate

Meaning: *Foreign exchange rate is the price of foreign currency compared to domestic currency*

For example, amount of Baht per one dollar = 30 Baht per 1 US\$

9.4 Meaning and importance of foreign exchange Rate

Why exchange rate is important?

(1) Exchange rate is essential for payment of goods and services between trading partners in different countries

(2) Changes in exchange rate affect the country export and import, international investment

Then, can affect current A/C balance and capital and financial A/C balance, production, employment, and national income

9.4.2 Demand for Foreign Exchange

- Demand for foreign exchange is a **derived demand** to buy foreign goods and services, to invest abroad, to donate money to other country etc.
- Factors affecting demand for foreign exchange: exchange rate and other factors affecting payment of foreign exchange in current A/C and capital and financial A/C

9.4.2 (a) Move along demand for foreign exchange curve

Exchange rate Δ



Demand for \$ Δ

Move along

Ex.

Exchange rate \uparrow

eg. Baht/\$ \uparrow

from 32 Baht / 1 \$
to 35 Baht / 1 \$



Baht depreciate

\$ appreciate



G&S import price

expensive



Import from US ↓

(affect payment
side of BOP)



Demand for \$ ↓

9.4.2 (b) Shift of demand for foreign exchange curve

Other factors rather than exchange rate that affect payment of foreign exchange (debit side) of BOP

affect



Demand for \$

Demand for \$ curve shifts

7.4.2 (b) Shift of demand for foreign exchange curve

Ex

Tendency of Thai people using US products ↑



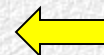
Import of US product ↑



Demand for \$ ↑



At the same level of ER D. for \$ ↑



Demand for \$ shift to the **right**

9.4.3 Supply for Foreign Exchange

- Supply for foreign exchange is a **derived supply** from selling goods and services abroad, from foreign countries invest in Thailand, from foreign countries donation to Thailand etc.
- Factors affecting supply for foreign exchange: exchange rate and other factors affecting **receiving of foreign exchange** of current A/C and capital and financial A/C

9.4.3 (a) Move along supply for foreign exchange curve

Exchange rate Δ



Supply for \$ Δ

Move along

Ex.

Exchange rate \uparrow

eg. Baht/\$ \uparrow

from 32 Baht / 1 \$
to 35 Baht / 1 \$



Baht depreciate

\$ appreciate



G&S export price

cheaper



Export to US \uparrow

(affect receive

side of BOP

Supply for \$ \uparrow



9.4.3 (b) Shift of supply for foreign exchange curve

Other factors rather than exchange rate that affect receiving of foreign exchange (credit side) of BOP

affect



Supply for \$

Supply for \$ curve shifts

9.4.3 (b) Shift of supply for foreign exchange curve

Ex

Tendency of US
people using Thai
products ↑



Thai export to
US ↑



Supply for \$ ↑



Supply for \$ shift
to the **right**



At the same level of
ER S. for \$ ↑

9.4.4 Exchange rate system

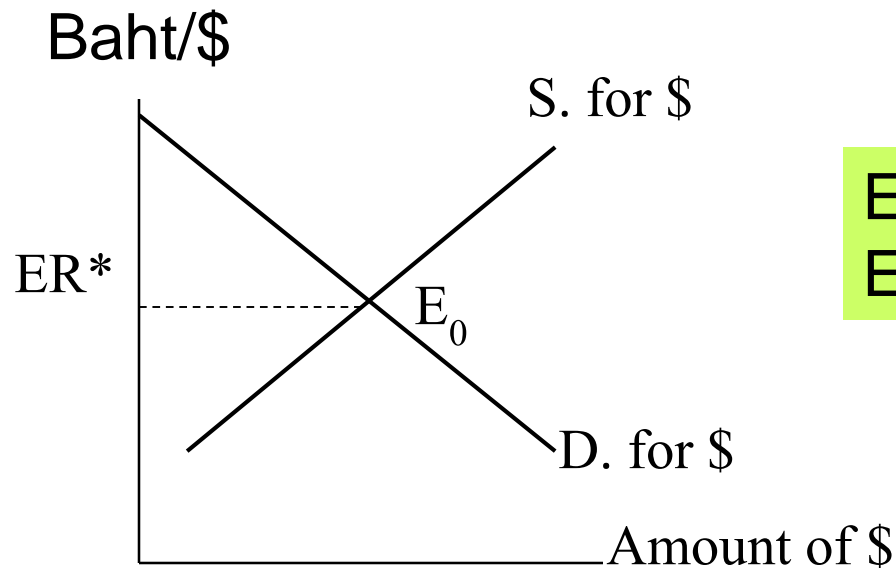
1. **Fixed (Pegged) Exchange rate System:** Exchange rates are determined by central bank (fix at a particular value)
2. **Adjustable Peg System:** Central bank fixes specific values for exchange rate, but explicitly recognizes that circumstances may arise in which it will change that value
3. **Managed Floating Exchange Rate:** The central bank seeks to have some stabilizing influence on the exchange rate, but does not try to fix it at some publicly announced value.
4. **Floating (market-determined) Exchange Rate System:** Exchange rates are determined by the unregulated forces of supply and demand.

9.4.4 Exchange rate system

YEAR		
1963	Original float	
20 OCT 1973	Fixed or Pegged exchange rate system (with \$US)	20.80 Baht/ 1 \$
1978	Basket of currency	Effective rate
1984-1990	Revise basket twice	Effective rate
1984-1997	Exchange Rate Equalization Fund (EEF) defend Baht value against \$US	
2 July 1997	Managed float exchange rate regime	

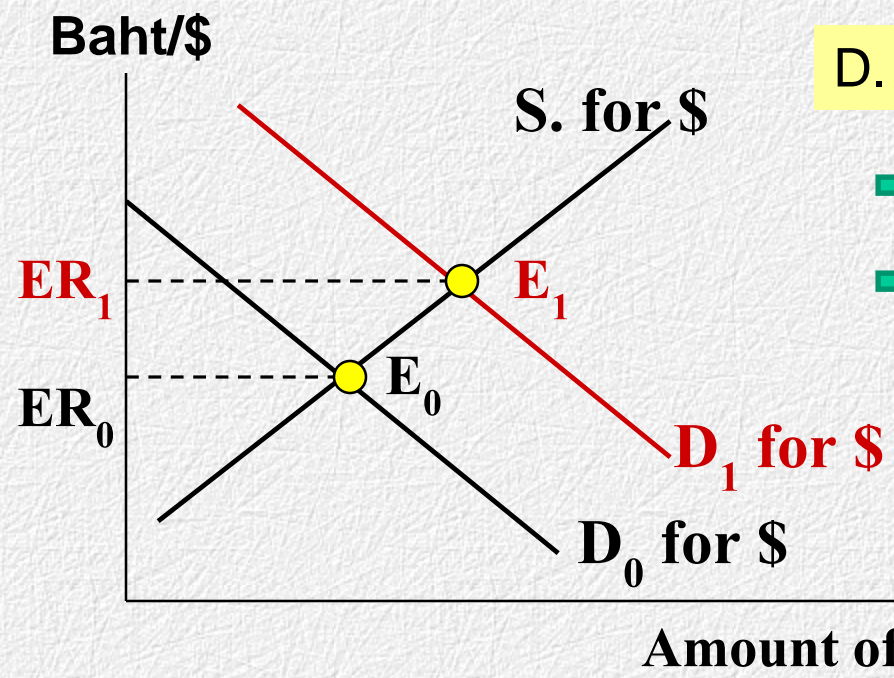
9.4.4 (a) Floating exchange rate system

is the exchange rates that are determined by market



ER^* is the Equilibrium Exchange Rate

If Thailand imports more US products



↓

D. for \$ ↑ → D. for \$ shifts to the right

→ Equ^m changes from E₀ to E₁

→ Equ^m ER ↑ from ER₀ to ER₁

Adjustment process from E₀ to E₁

At ER₀ → Excess D. for \$

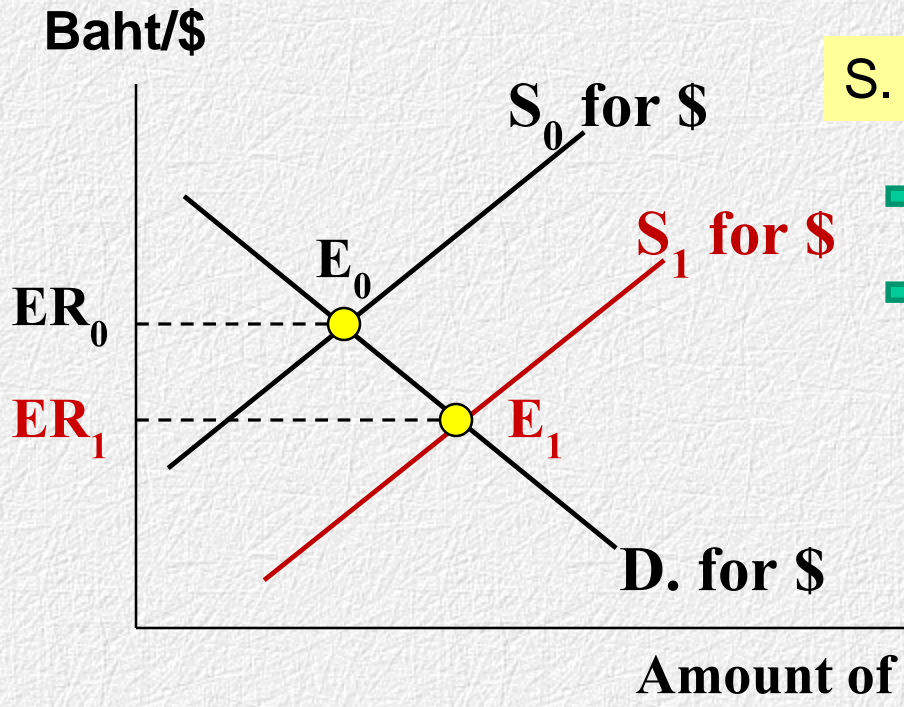
→ Exchange rate has to ↑ b/c

When ER ↑ → Value of Baht ↓ Value of \$ ↑

- Import tends to ↓ → D. for \$ ↓
- Export tends to ↑ → S. for \$ ↑
- Thai investors investment abroad ↓ → D. for \$ ↓
- Foreign investment in Thailand ↑ → S. for \$ ↑

→ D. for \$ ↓ and S. for \$ ↑ until D for \$ = S for \$

If foreigners invest more in Thai stock market



S. for \$ ↑ → S. for \$ shifts to the right

→ Equ^m changes from E₀ to E₁

→ Equ^m ER ↓ from ER₀ to ER₁

Adjustment process from E₀ to E₁

At ER₀ → Excess S. for \$

→ Exchange rate has to ↓ b/c

When ER ↓ → Value of Baht ↑ Value of \$ ↓

→ Import tends to ↑ → D. for \$ ↑

→ Export tends to ↓ → S. for \$ ↓

→ Thai investors investment abroad ↑ → D. for \$ ↑

→ Foreign investment in Thailand ↓ → S. for \$ ↓

→ D. for \$ ↑ and S. for \$ ↓ until D for \$ = S for \$

Example of the effects of other situations on Exchange Rate

1. Domestic price of export goods (such as rice)

Price of rice in Thailand in Baht \uparrow \rightarrow Price of rice export \uparrow \rightarrow affect S. of foreign currency

Effects on S. of foreign currency depends on Price elasticity of foreign demand on Thai rice

If foreign demand is **very elastic** to export price of Thai rice



The total amount of foreign spend on Thai rice
($P \uparrow$, $Q \downarrow$ a lot)



S. of foreign currency \downarrow



ER \uparrow

If foreign demand is **inelastic** to export price of Thai rice



The total amount of foreign sped on Thai rice
($P \uparrow$, Q not change)



S. of foreign currency \uparrow



ER \downarrow

Example of the effects of other situations on Exchange Rate

2. Foreign price of import goods (such as machine)

Price of machine
in USA in \$



Price of machine
import



affect D. for foreign currency

Effects on D. for foreign currency depends on Price elasticity of Thai demand on US machines

If Thai demand is
very elastic to
import price of US
machine



The total amount
of Thailand spend on
US machine
(P ↑ , Q ↓ a lot)



D. for
foreign
currency



ER ↓

If Thai demand is
inelastic to import
price of US
machine



The total amount
of Thailand spend on
US machine
(P ↑ , Q **not change**)



D. for
foreign
currency



ER ↑

Example of the effects of other situations on Exchange Rate

3. Changes in overall price level --please read Page 875 in Lipsey (2007)

- Case of equal inflation in both countries
- Case of inflation in only one country
- Case of inflation at unequal rates

Example of the effects of other situations on Exchange Rate

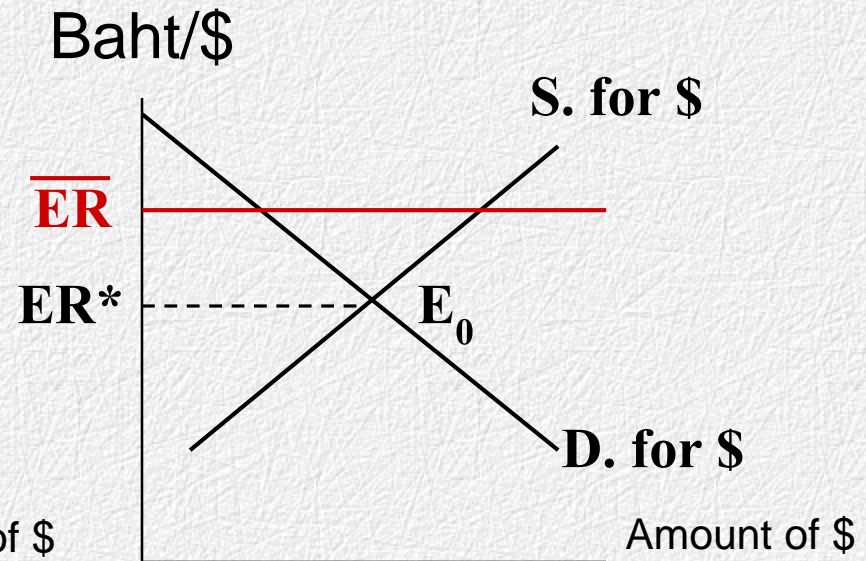
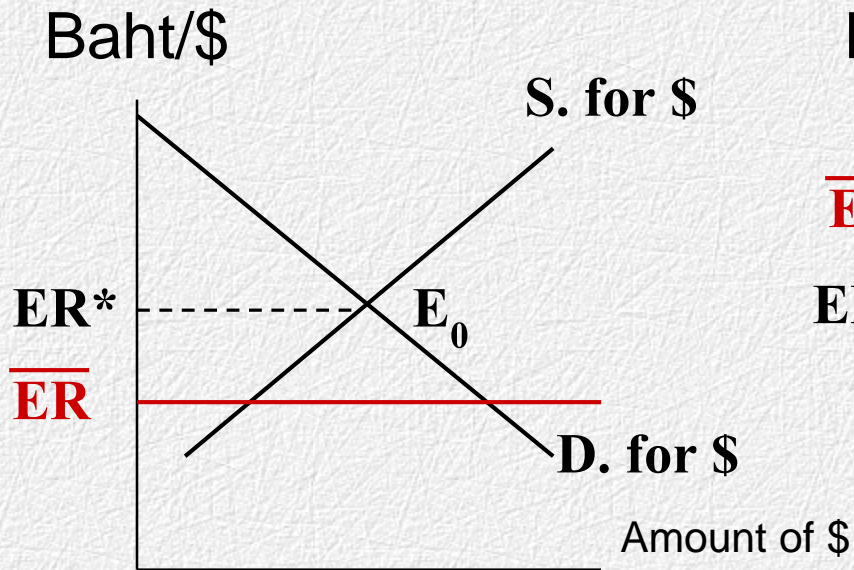
4. Interest rate

If interest rate in Thailand increase so that it is more than interest rates in other ASEAN countries

→ Financial capital flow to Thailand ↑ → S. of foreign currency ↑ → ER ↓

→ Demand for foreign capital ↓ → D. for foreign currency ↓ → ER ↓

9.4.4 (b) Fixed exchange rate system



$\overline{ER} < ER^* \Rightarrow$ Excess D. for \$
(At $ER = \overline{ER}$)

$\overline{ER} > ER^* \Rightarrow$ Excess S. for \$
(At $ER = \overline{ER}$)

Tools to control exchange rate

1. *International Reserve*

Excess D. for \$



Central bank sell \$

Excess S. for \$



Central bank buy \$ back

2. *Trade policy*

Excess D. for \$



Try to control import
promote export

Excess S. for \$



Try to control export
promote import

Tools to control exchange rate

3. Control foreign exchange

Excess D. for \$



Control import and promote export using financial instruments

Excess S. for \$



Control export and promote import using financial instruments