8. International Economics

EE212

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Contents

1 Introduction to international trade

1.1 Reason for trade

1. The production cost of the same commodity in each country is not equal
2. **Comparative advantages**

- without international trade, no foreign-made product
- trade ⇒enlarge market size ⇒ room for dividion of labour ⇒ specialization (increase productivity) ⇒ more outputs with the same inputs

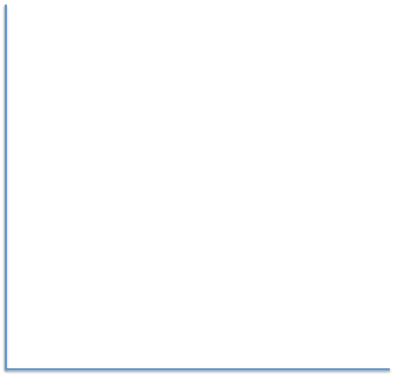
1.2 Comparative Advantage

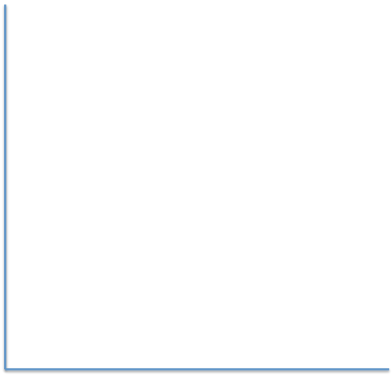
- We examine a special case. We assume the world to consist of two products; meat and potatoes.
- There are two producers: A Farmer (Billy) and A Rancher(Helen)
- Each producer has a production possibility frontier: How much of each good can they produce in 40-hours.
- The key to understanding the motivation for trade is defining the difference between absolute advantage and comparative advantage. The latter forms the basis for trade.
- The objective of trade is to improve the standard of living for both producers (consumers).
- Production Possibility Frontier: 2 Producers- 40 hours of labor each yields

	Amount produced in 8 hours		Hours needed to make 1 kg of:	
	Meat	Potatoes	Meat	Potatoes
Farmer	.....kg.	.....kg.	20 hr./kg	10 hr./kg.
Rancher	.....kg.	..... kg.	1 hr./kg	8 hr./kg.

- It seems that rancher is more efficient because rancher use less time to produce both goods.
- "Absolute advantage: an agent has an absolute advantage in producing a given good if he is more efficient in producing it than any other agent."

- Which agent has the absolute advantage in producing cheese and which agent has the absolute advantage in producing bread?
- The Racher has an absolute advantage in producing both goods.
- Draw production possibility frontier





- Consider the Opportunity Costs: : an opportunity cost is the cost of any activity measured in terms of the best alternative foregone.

	Meat in terms of potatoes given up	Potatoes in terms of meat given up
Farmer	2	$\frac{1}{2}$
Rancher	$\frac{1}{8}$	8

- So the rancher can produce 1 kg. of meat at a lower opportunity cost
- The farmer can produce 1 kg of potatoes at a lower opportunity cost
- For the rancher – potatoes are more expensive relative to meat
- For the Farmer – meat is more expensive relative to potatoes
- "An agent has a comparative advantage in producing the good for which the cost opportunity is lower."
- Comparative advantage reflects - RELATIVE opportunity cost
- Which agent has the comparative advantage in producing cheese and which agent has the comparative advantage in producing bread?

- Farmer is RELATIVELY more efficient than rancher in producing potatoes.
- Suppose both divide their time equally for these 2 production; 20 hours for meat and 20 hours for potatoes

	Meat	Potatoes
Farmer	1 kg.	2 kg.
Rancher	20 kg.	2.5 kg.

- Without trade,for each individual, if they want to produce and consume more of one goods; they must produce and consume less of the other goods
- Show the production of the farmer and the rancher in PPC graph on the previous page
- How can the two improve their total [consumption] via trade?
- The Rancher's Offer to Farmer: Spend all 40 hours producing potatoes and I'll trade 3 kg of meat for 1 kg of your potatoes.
- So the farmer spends 40 hours producing ..... kg. potatoes
  - With the offer the farmer will exchange 1 kg of potatoes with 3 kg of meat
  - The farmer will have ..... kg of potatoes and ..... kg of meat.
  - The farmer will be better off because the farmer can consume more of both goods which might not be possible without trade
  - Show the consumption of the farmer on PPC graph
- The rancher will allocate more time on meat production and less time on rice production by 4 hours
- The rancher will produce ..... kg of meat and ..... kg of potatoes
- Then, the rancher will exchange 3 kg of meat with 1 kg of potatoes
- The rancher will have ..... kg of potatoes and ..... kg of meat.
- The Rancher will be better off because the farmer can consume more of both goods which might not be possible without trade
- Show the consumption of the farmer on PPC graph
- The rancher has absolute advantage over the farmer in meat and potatoes production.
- However, the opportunity cost of producing potatoes of the rancher is greater than that of the farmer.

- Therefore, the farmer has a comparative advantage over the rancher in potatoes production.
- When one party has a comparative advantage over the other party, there is a benefit from trade.
- If the rancher had a comparative advantage over the farmer in producing both goods, there would be no benefit from trade.
- Gains from specialization and trade based on comparative advantage .
- Total production in economy rises Increase in the size of the economic pie. Everyone – better off.
- Trade can benefit everyone in society. It allows people to specialize in activities Have a comparative advantage.
- The price of trade Must lie between the two opportunity costs.

- Should Tiger Woods mow his own lawn?
  - Woods : Mow his lawn in 2 hours , Film a TV commercial and earn $10,000 (2 hours)
  - Gump : Mow Woods's lawn in 4 hours , Work at McDonald's and earn $20 (4 hours)

- Should Thailand trade with other countries?
  - Imports: Goods produced abroad and sold domestically
  - Exports: Goods produced domestically and sold abroad
- Principle of comparative advantage
  - Each good – produced by the country with smaller opportunity cost of producing that good
- Specialization and trade
  - All countries – greater prosperity
- Two Important Economists' Contributions Adam Smith: (not required)

  - The economic benefits of specialization
  - David Ricardo: The economic benefits of comparative advantage and free trade

- Principle of comparative advantage

  - Each good – produced by the country with smaller opportunity cost of producing that good

- Specialization and trade

  - All countries – greater prosperity

1.3 Why trade?

- Absolute advantage: the advantage that a country enjoyed when it can use "fewer resources" to produce one good than other country.
- A country with absolute advantage can sell its product to other countries.
- Comparative advantage: the advantage that a country enjoyed when its "opportunity cost" (in terms of other goods it can produce) to produce a good is less than other country.
- Comparative advantage allows trade to always be profitable, even when one party in trade has absolute advantage in all products.

1.4 Why protection?

- Saving jobs Unfair competition due to cheaper labour abroad
- This belief is against the theory of comparative advantage
- Protecting national security
- Discourage dependency
- Safeguarding infant industries

Channels for protection

- Forms of trade protection
- Tariff (import taxes)
  - http://igtf.customs.go.th/igtf/th/main_frame.jsp
- Quota
- Export subsidies
- Dumping

2 Balance of Payment

- 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
  - Composition of BOP account
    1. Current Account : $ flow in (+), $ flow out (-)
    2. Capital and Financial Account : $ flow in (+), $ flow out (-)
    3. International Reserve Account : change in international reserve

2.1 Current Account :

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

2.2.2 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)

2.1.3 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)

2.1.4 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)

Current Account Balance = Trade in Goods Acc. Bal. + Trade in Service Acc. Bal. + Income Acc. Bal. + Transfer Acc. Bal.

2.2 Capital and Financial Account :

It records purchases and sales of foreign assets and purchases and sales of domestic assets by foreign residents (for example, a Thai resident that buys a US bond for $100 will enter with a minus into the capital account (-$100 converted into Bahts according to the exchange rate). A US resident that buys a Thai government bond for Bht.100 will enter with a plus into the capital account, and so on).

- Shows changes of the country international reserve during one period resulting from the adjustment of difference between total receipt and payment of fore

2.3 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.

- Current Account + Capital and Financial Account $> 0 \Rightarrow$ Surplus $\Rightarrow$ International Reserve $\uparrow$
- Current Account + Capital and Financial Account $< 0 \Rightarrow$ Deficit $\Rightarrow$ International Reserve $\downarrow$

- Theoretically, current account and capital account should move in the opposite direction. For each transaction in the current account, there is an offsetting transaction in the capital account. Example: think about what happens to each of the accounts when a Thai person buys a car from Japan. Current account will be negative due to the rise in import. But capital account will be positive due to the rise in assets held by the Thais.

3 Market for foreign exchange

- 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 = 31 Baht per 1 US$.
- There two ways to quote an exchange rate:
  1. Indirect Quote : The relative price of domestic currency in terms of foreign currency: For example, 715 Vietnamese Dong per 1 Baht
  2. Direct Quote : The relative price of foreign currency in terms of domestic currency. For example, 31 Baht per 1 US$
- We consider only "**Direct quote**" .
- **Appreciation** : the currency is more expensive, Baht appreciates from 30 Baht to .... Baht per US$, exchange rate (ER) .....
- **Depreciation** : the currency is cheaper, Baht depreciates from 30 Baht to ..... Baht per US$, exchange rate (ER) .....
- 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

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.

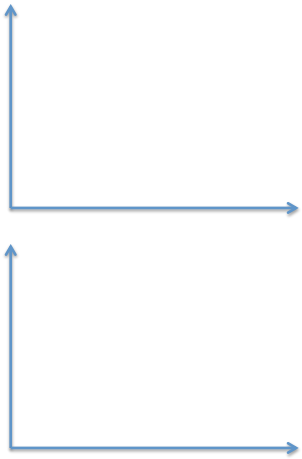
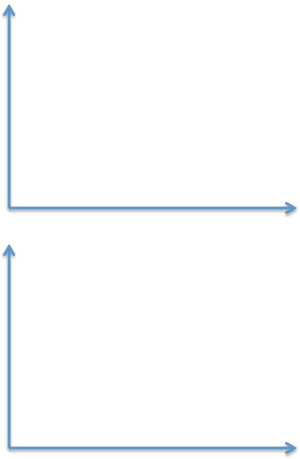
YEAR		
1963	Original float	
20 OCT 1973	Fixed or Pegged exchange rate system (with $US)	20.80 Baht/ 1 $
1978	Basket of currency	Effective rate
1984-1990	Revise basket twice	Effective rate
1984-1997	Exchange Rate Equalization Fund (EEF) defend Baht value against $US	
2 July 1997	Managed float exchange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

Demand for Foreign Exchange	Supply for Foreign Exchange
Demand for goods, services and investments produced by	Demand for goods, services and investments produced by .....
Exchange Rate = Price of Imported goods, services and investments Appreciation ⇒ D for $ .... Depreciation ⇒ D for $	**Exchange Rate**= Price of Exported goods, services and investments Appreciation⇒ D for $ .... Depreciation ⇒ D for $ ....
Central Bank Buy more foreign currency reserves ⇒ D of $ increases (shift to the right)	Central Bank Sell more foreign currency reserves ⇒ S of $ increases (shift to the right)

- Change in Exchange Rate $\Rightarrow$ Movement Along D and S curve
- Exchange Rate $\uparrow \Rightarrow$ Demand for \$ .....
- Exchange Rate $\downarrow \Rightarrow$ Demand for \$ .....
- Exchange Rate $\uparrow \Rightarrow$ Supply of \$ .....
- Exchange Rate $\downarrow \Rightarrow$ Supply of \$ .....
- Equilibrium Exchange Rate
- Change in the other factors determining D and S for \$ $\Rightarrow$ Shift in D and S curve

3.1 Floating exchange rate system: the exchange rates that are determined by market

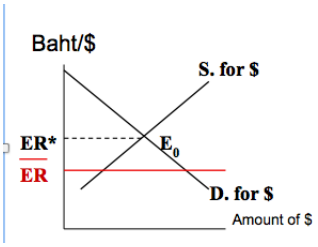
- Change in Exchange Rate $\Rightarrow$ Movement Along D and S curve.
- Equilibrium Exchange Rate : ER^*
  - ER .....ER^* : Excess Demand for \$
  - ER .....ER^* : Excess Supply of \$
- Change in the other factors determining D and S for \$ $\Rightarrow$ Shift in D and S curve$\Rightarrow$ Change in Equilibrium

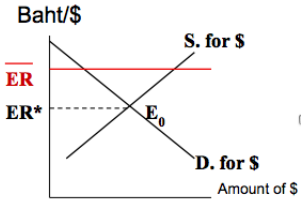
How does each of these situations affect Baht exchange rate? [and Balance of Payment]

- Thailand imports more US products
- Foreigners invest more in Thai stock market
- Domestic price of export goods (such as rice) decreases
- Foreign price of import goods (such as machine) decreases
- 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
- Interest rate in Thailand increases so that it is more than interest rates in other ASEAN countries
- Interest rate in Thailand decreases so that it is more than interest rates in other ASEAN countries

3.2 Fixed exchange rate system: Exchange rates are determined by central bank (fix at a particular value)



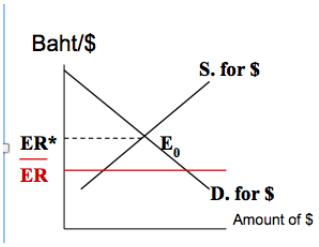
- Exchange rate determined by BOT is ..... than market rate
- At $\bar{ER}$, There is an excess .....



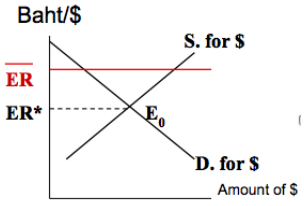
- Exchange rate determined by BOT is ..... than market rate
- At $\bar{ER}$, There is an excess .....

Tools to control exchange rate

1. International Reserve :
   Excess Demand for $ $\Rightarrow$ Cental Bank ..... Foreign Currency
   Excess Supply for $ $\Rightarrow$ Central Bank ..... Foreign Currency
2. Trade policy
   Excess Demand for $ $\Rightarrow$ Cental Bank controls .....
   promotes .....
   Excess Supply for $ $\Rightarrow$ Central Bank controls .....
   promotes .....



- Excess Demand for $



- Excess Supply of $