

International Economics

Part 2

Topics to be covered

For today,

- Fixed and Floating Exchange Rates
- Law of One Price
- Purchasing Power Parity

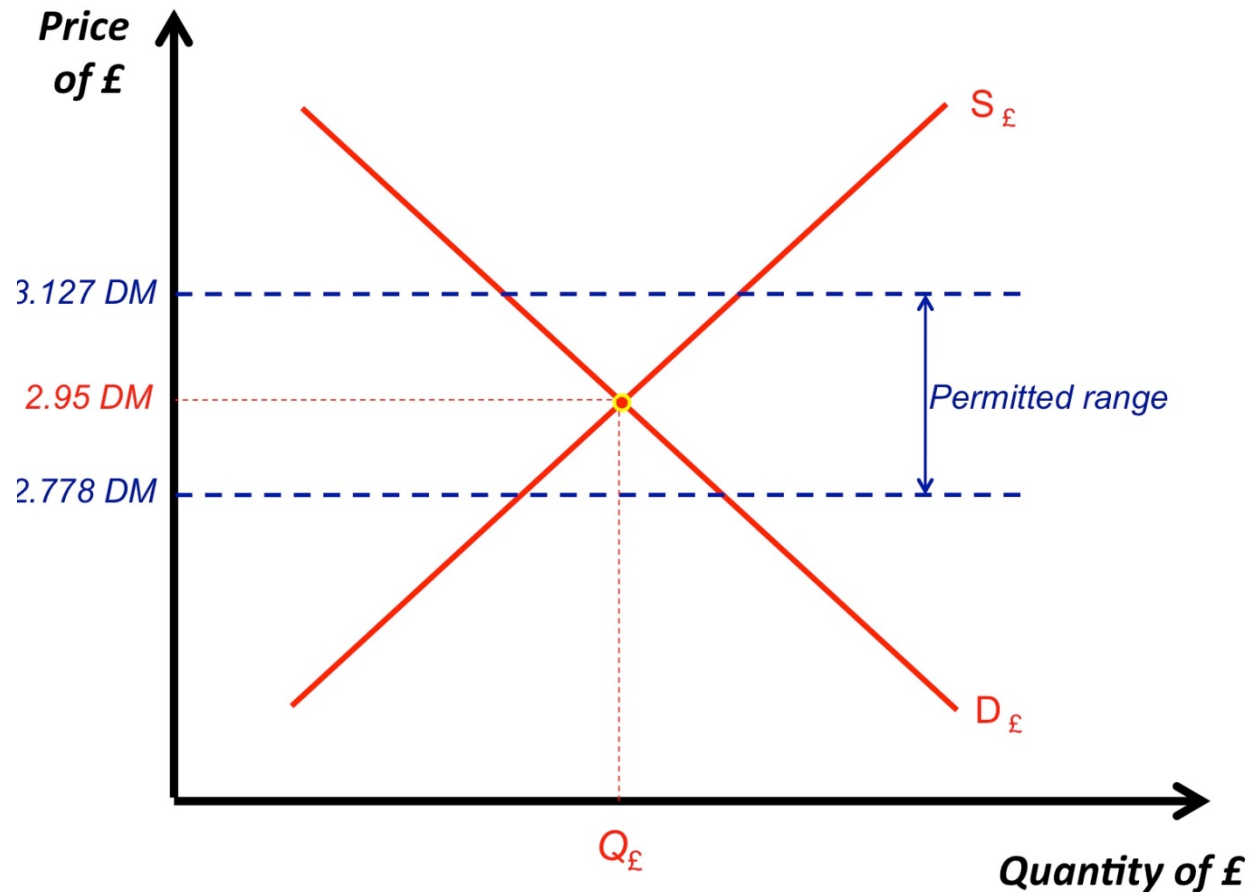
Exchange Rate

- **Exchange Rate:** a relative price (ratio of two prices) between domestic currency and foreign currency
- **Foreign Exchange Market:** a global decentralized market for the trading of currencies
 - Govt cannot control this market, but it can control exchange rate by buying and selling in this market.
- For example, (baht is domestic currency)
 - 30 baht / 1 US dollar (direct quote)
 - 0.03 US dollar / 1 baht (indirect quote)

3 Exchange Rate Regimes

- Floating Exchange Rate
 - The “**equilibrium**” exchange rate is determined by the demand and supply of the currency.
- Fixed (Pegged) Exchange Rate
 - The exchange rate of is controlled by the central bank.
 - The central bank can buy/sell “foreign reserve” to control the supply and demand of the currency.
- Managed Float Exchange Rate (commonly used)
 - The exchange rate is controlled within a certain range, but can fluctuate around within such range.

Managed Float Exchange Rate



Key Terms

The Supply of and Demand for Thai Baht

- Governments, private citizens, banks, and corporations exchange baht for dollars and dollars for baht every day.
- **Those who demand Baht** are holders of dollars (e.g. US citizens) seeking to exchange them for baht.
- **Those who supply Baht** are holders of baht (e.g. Thai citizens) seeking to exchange them for dollars.

Key Terms

In Floating Exchange Rate Regime,

- **Appreciation** of a currency The rise in value of one currency relative to another.
- **Depreciation** of a currency The fall in value of one currency relative to another.

For example, from 30 THB / 1 USD to 33 THB / 1 USD,

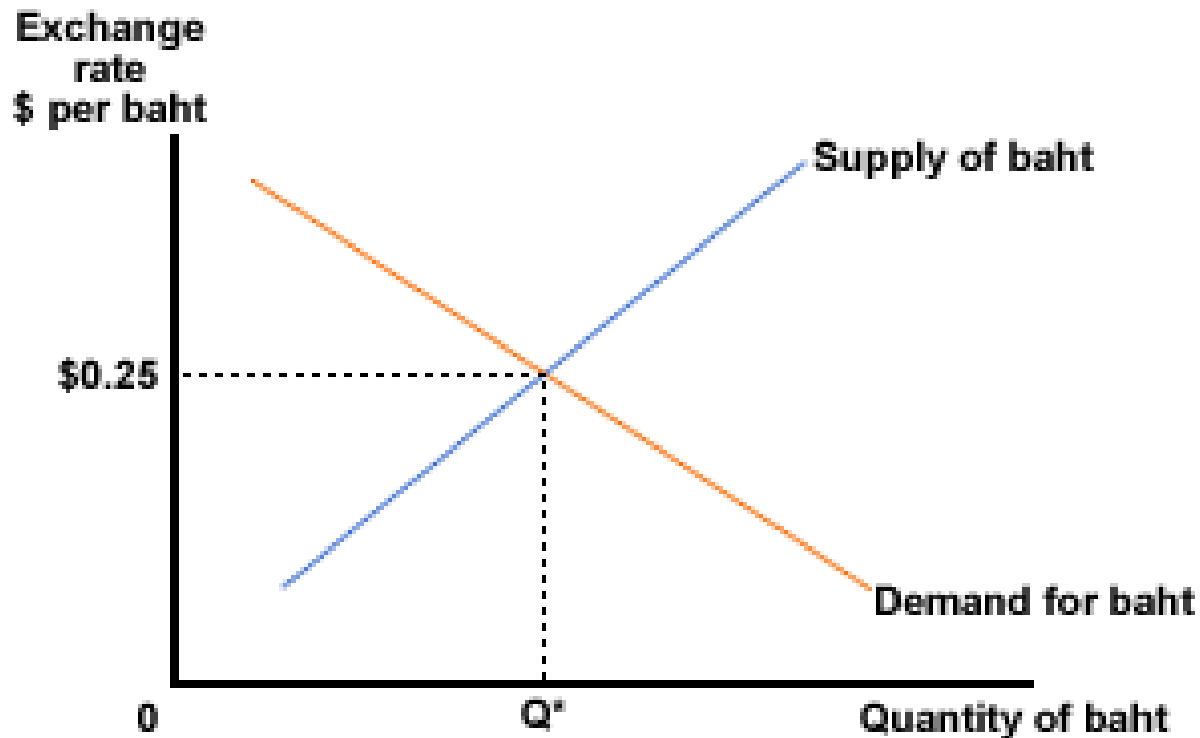
- Depreciation of THB
- Appreciation of USD

Key Terms

In Fixed Exchange Rate Regime (set by the central bank),

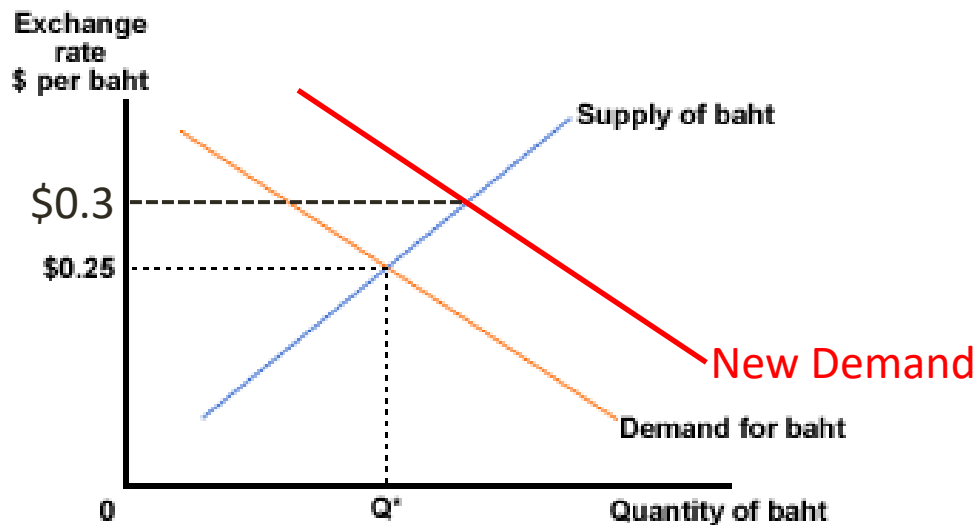
- **Revaluation** an official increase in the value of the currency in relation to a foreign currency.
- **Devaluation** an official decrease in the value of the currency in relation to a foreign currency.

Floating Exchange Rate



Floating Exchange Rate

- When Demand for baht increases (shift right), the price of baht (exchange rate) also goes up.
- From \$0.25 / 1 THB to \$0.3 / 1 THB, we have
 - Appreciation in THB
 - Depreciation in USD



Floating Exchange Rate

- In Floating Exchange Rate Regime, everything works as in the demand/supply diagram.
- Higher Demand for THB >> Appreciation of THB
- Higher Supply of THB >> Depreciation of THB
- We need to think about the factors that affects the demand and supply of currencies.

Floating Exchange Rate

Factors that affects the demand and supply of currencies

- Thailand increases import:
 - >> more D of USD = more S of THB
 - >> THB depreciates while USD appreciates.
- Thailand attracts US investors:
 - >> more D of THB
 - >> THB appreciates while USD depreciates.
- Thailand has higher interest rate
 - >> higher return attracts US investors.
 - >> more D of THB
 - >> THB appreciates while USD depreciates.

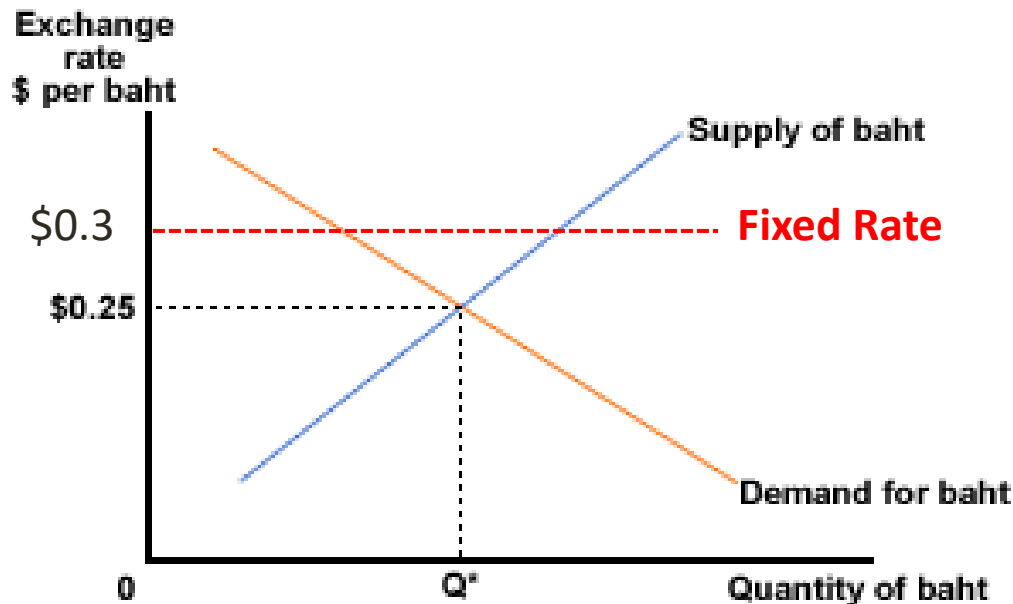
Floating Exchange Rate

Factors that affects the demand and supply of currencies

- Inflation is a complex factor:
 - It can increase interest rate (Fisher's Equation) and attract foreign investors. (THB appreciates)
 - But it can imply that domestic goods become more expensive, thus reducing export while raising import. (THB depreciates)
 - Moreover, the purchasing power of the currency is eroding, which discourages anyone from holding the currency. (THB depreciates)
 - Thus, its negative effect tends to be greater.

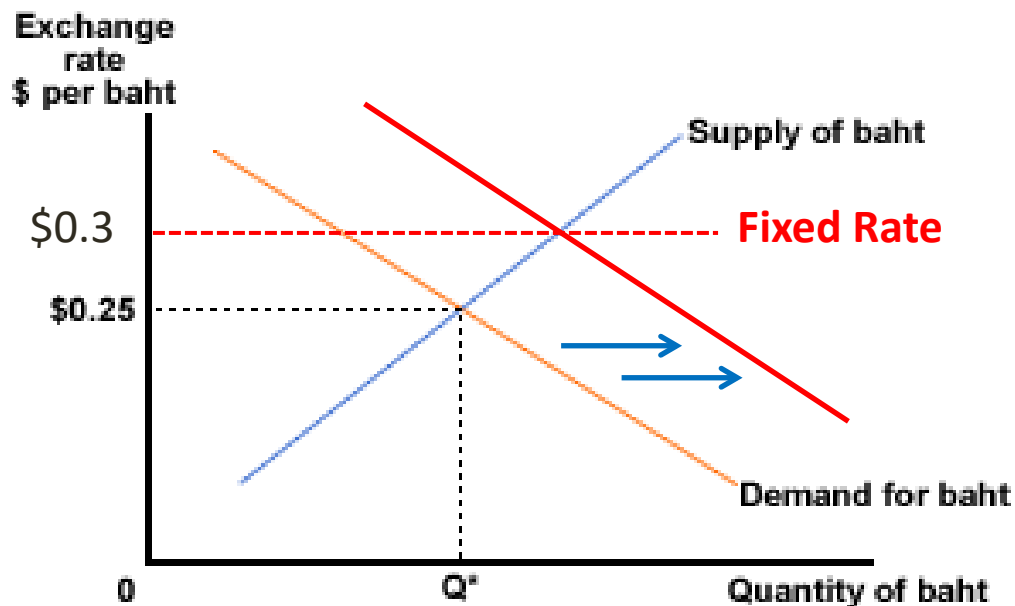
Fixed Exchange Rate

- Now, suppose the central bank of Thailand wants to fix the exchange rate at 0.3 USD / 1 THB. But the equilibrium exchange rate is currently at 0.25 USD / 1 THB.
- What can **the CB of Thailand** do?



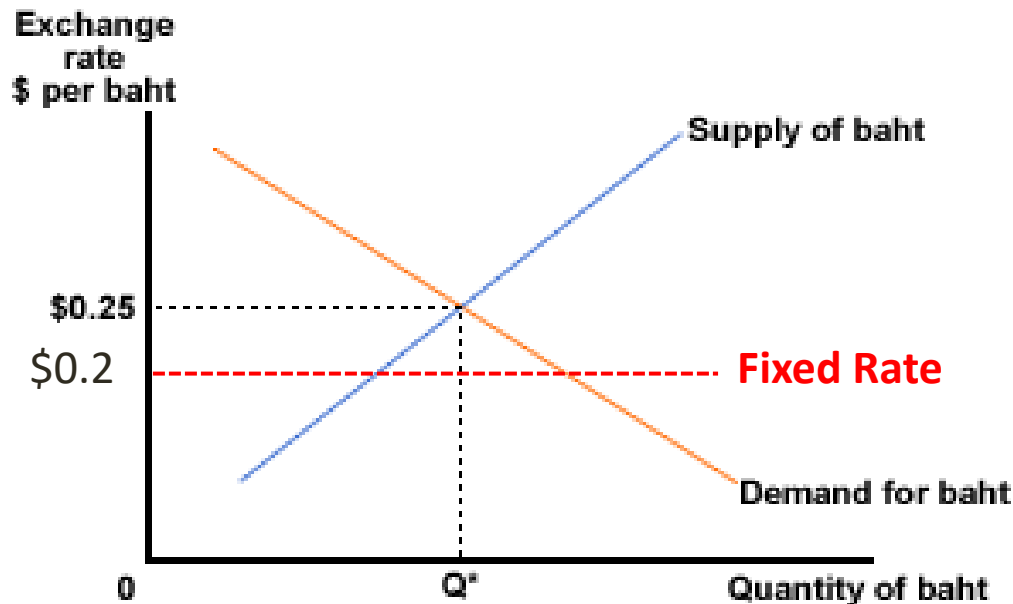
Revaluation

- The CB can increase Demand for baht.
- It can buy baht (and sell USD) from the foreign exchange market. This will lead to appreciation in THB.



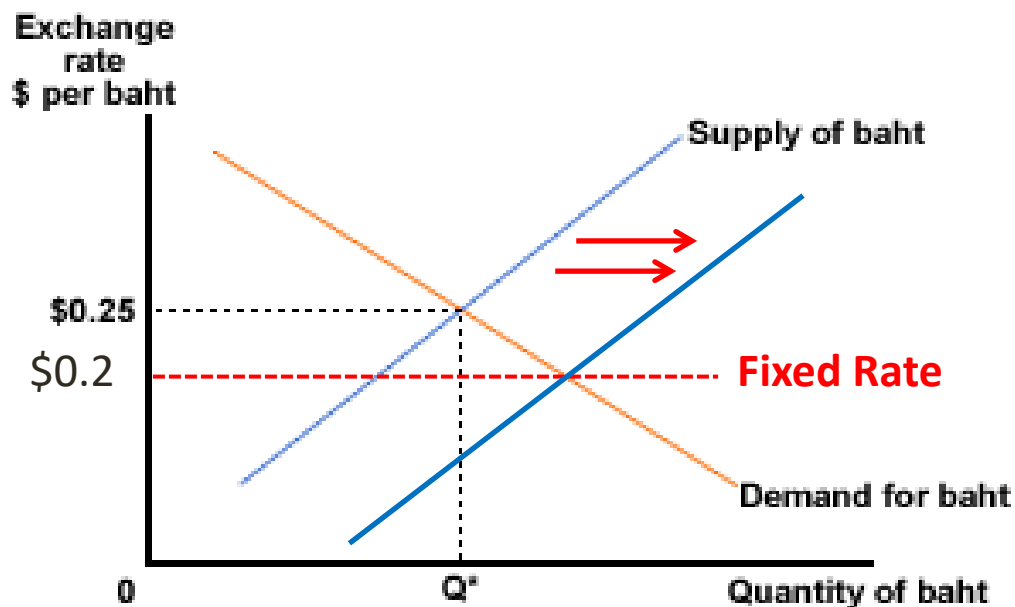
Fixed Exchange Rate

- Now, suppose the central bank of Thailand wants to fix the exchange rate at 0.2 USD / 1 THB. But the equilibrium exchange rate is currently at 0.25 USD / 1 THB.
- What can **the CB of Thailand** do?



Devaluation

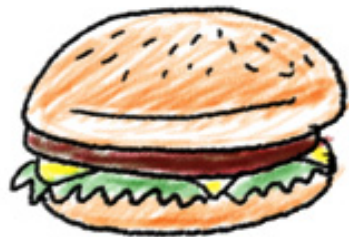
- The CB can increase Supply of baht.
- It can sell baht (and buy USD) from the foreign exchange market. This will lead to depreciation in THB.



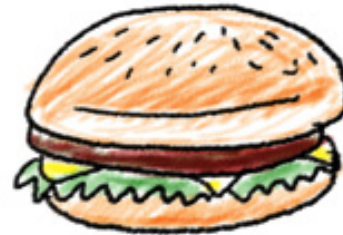
Extra – PPP Exchange Rate

- **Law of One Price** If the costs of transportation are small, the price of the same good in different countries should be roughly the same.
- **Purchasing-Power-Parity Theory** A theory of international exchange, stating that exchange rates are set so that the price of similar goods in different countries is the same.
- In short, PPP uses LOOP to create the PPP exchange rate.

Extra – PPP Exchange Rate



\$ 3.57



£ 2.29

$\$1.56 : \pounds 1$ PURCHASING
POWER PARITY

$\$2 : \pounds 1$ ACTUAL
EXCHANGE RATE