Principles of Economics (Spring 2024)
Lecture 16
Basics of Macroeconomics

Part I

Money – The set of assets in an economy that people regularly use to buy goods and services from each other.

- **Why Care about Money** – Money is used to measure wealth.
- **Functions of Money**
  - medium of exchange: an item that buyers give to sellers when they purchase goods and services – the transfer of money from buyer to seller allows the transaction to take place, because money is commonly accepted.
  - Unit of account: the yardstick people use to post prices and record debts, e.g., $500.
  - store of value: an item that people can use to transfer purchasing power from the present to the future – when a seller accepts money today in exchange for a good or service, that seller can hold the money and become a buyer of another good or service at another time.
- **Price of Money** – Interest rate.

Money:

A good

⇒ A commonly accepted good

⇒ Everyone converts their wealth into this good to exchange for other goods how much goods \$1 can buy

Part II purchase power ↓ → price level ↑

Price Level and Inflation

- **Price Level** – An (Interest rate) indicator of how high or low overall prices are for a given period in the economy.
  - **Price Index** – A number used to measure the price level.

- **Inflation** – An increase in the overall price level in the economy.
  - **Inflation Rate** – The percent change in the price level from the previous period.

- **Deflation** – negative inflation, i.e., the fall in the overall price level.

- **Nominal Variable vs. Real Variable**

	Nominal Variable	Real Variable
Definition I	Variables measured without adjusting for the change in the value of a dollar; Unadjusted for inflation.	Variables adjusted for the changes in the value of a dollar; adjusted for inflation.
Definition II	Variables measured in monatary units.	Variables measured in physical units.

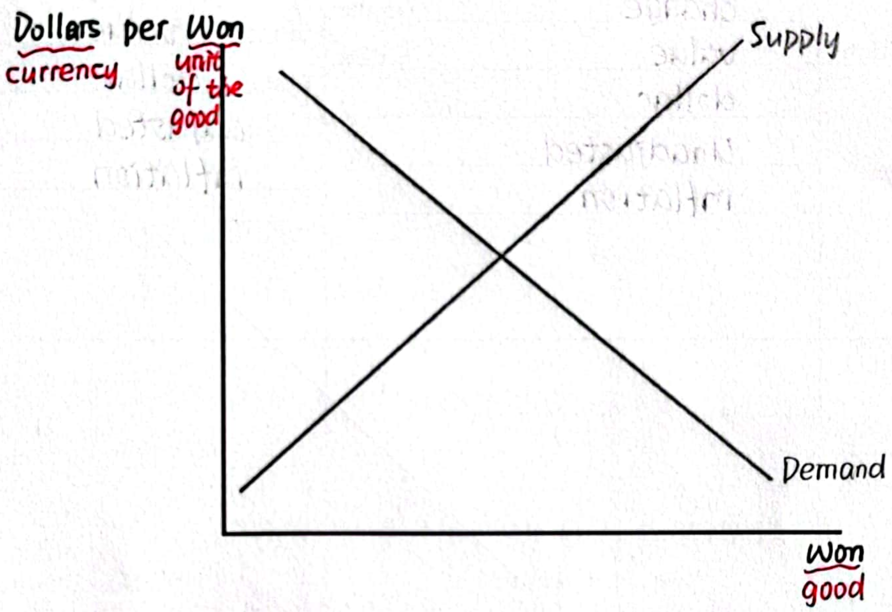
- **Effects of Inflation on the Economy**
  - When inflation increases unexpectedly, real wages decline and employers gain at the expense of workers, while debters gain at the expense of creditors.
  - Inflation distorts buying and selling decisions as people would make choices based on their estimates of future inflation.

Inflation → People want to get rid of money as quickly as possible → supply of money ↑ → inflation ↑

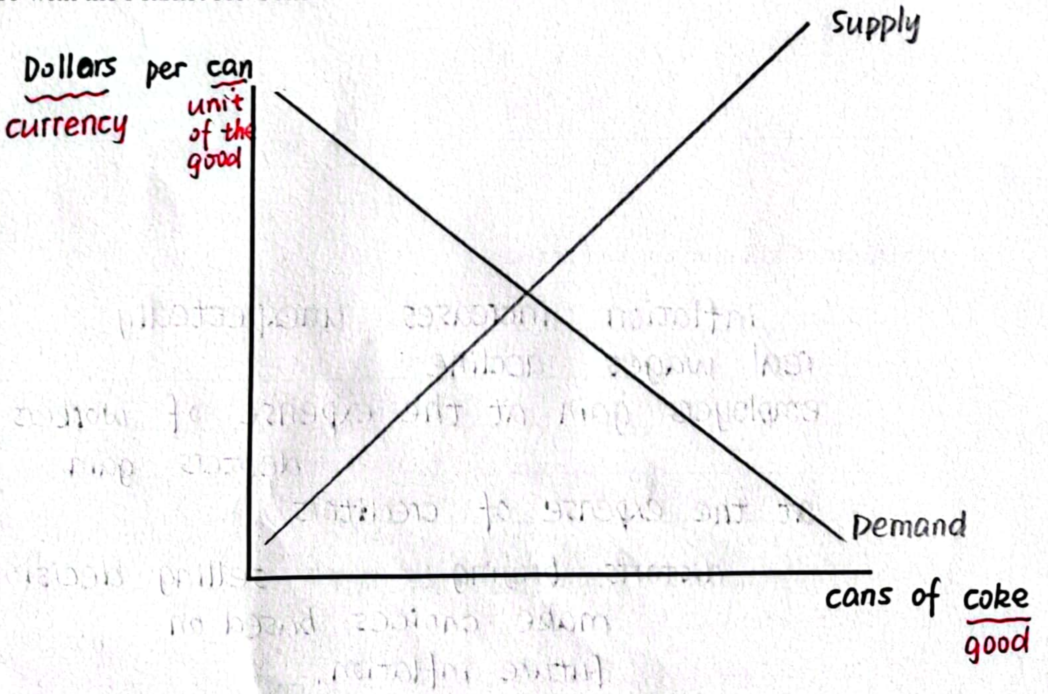
Part III

Foreign Exchange Market – A means of trading the money of one nation with the money of another nation.

Example 1: United States Market for Korean Won



Compare with the Market for Coke



- **Demand and Supply of Dollars in Foreign Exchange Market**
  - A demand for Dollars is generated when foreigners want to buy dollars to acquire U.S goods, services or assets.
  - A supply of Dollars is generated when holders of dollars want to acquire foreign goods, services or assets.

- **Exchange Rate** – Put the " currency " in the numerator, and put the " good " in the denominator.

Example 2: Exchange Rates on May 16, 2024

- 1 Korean Won = 0.00074 United States Dollar
- 1 United States Dollar = 1349.72 Korean Won
- 1 Chinese Yuan = 0.14 United States Dollar
- 1 United States Dollar = 7.22 Chinese Yuan

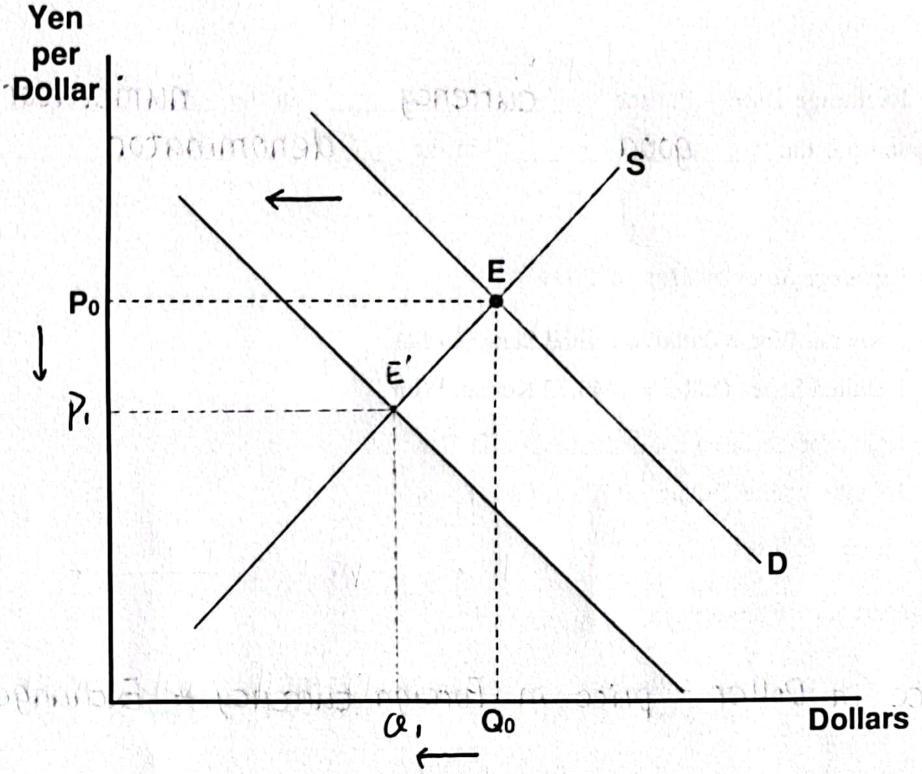
- **Currency Conversion**

price in Doller = price in Foreign currency * Exchange rate

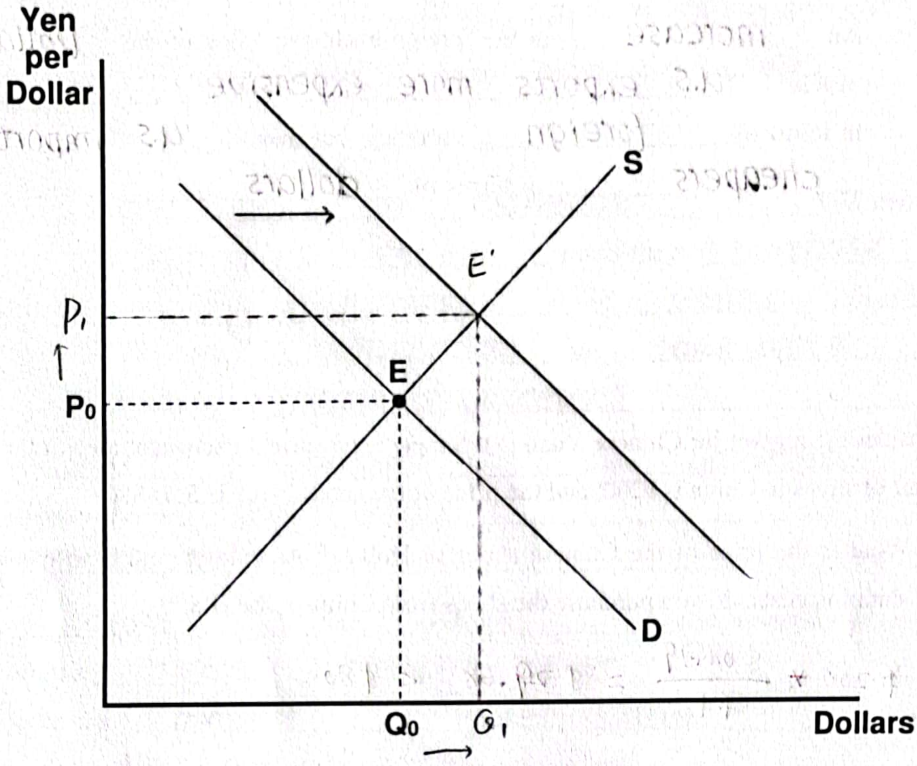
Example 3

With an exchange rate of 145 Yen per Dollar, a camera worth 50,000 Yen costs $50000/145 = 344.83$ Dollar(s).

- **Changes in the Foreign Exchange Rate**
  - A decrease in the demand for US Dollars by Japanese holders of Yen will cause the foreign exchange rate of the Dollars in terms of Yen → in this currency to fall -- the value of U.S. Dollars decreases, while the value of Japanese Yen increases.



- An increase in the demand for US Dollars by Japanese holders of Yen will cause the foreign exchange rate of the Dollar in terms of Yen to ~~fall~~ increase – the value of U.S. Dollars increases, while the value of Japanese Yen decreases.



- **Impact of the Changes in the Foreign Exchange Rate**
  - A decrease in the foreign exchange value of the Dollar makes U.S exports cheaper in terms of foreign currency, but makes U.S imports more expensive in terms of dollars, ceteris paribus.
  - An increase in the foreign exchange value of the Dollar makes U.S exports more expensive in terms of foreign currency, but makes U.S imports cheapers in terms of dollars, ceteris paribus.

Exercise 1

Consider the market for Chinese Yuan (¥). Suppose the current exchange rate is ¥1 = $0.1479. If the price of a pair of shoes in China is ¥200, and the price of the shoes in the U.S. is $80.

1) What is the price of the Chinese shoes in Dollars? Assume there are no other transaction or shipping costs, do you purchase the shoes from China or the U.S.?

$$¥200 * \frac{\$0.1479}{¥1} = \$29.58 < \$80$$

⇒ Buys shoes from China

2) What is the exchange rate for Dollars in terms of Chinese Yuan?

$$\frac{¥1}{\$0.1479} = 6.76\ ¥/\$$$