Principles of Macroeconomics Module 7.1

Understanding Balance of Payments

Balance of Payments

Balance of Payments are the measurement of economic activity a country conducts internationally

- Current Account:
- Capital Account:

Balance of Payments

- **<u>Current Account:</u> The value of trade of goods and services across boarders**

- <u>Capital Account:</u> The monetary flows between countries used to purchase financial assets such as stocks, bonds, real estate and other related items

Capital Account + Current Account = 0

If Current Account is in deficit, then Capital Account is in surplus

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Balance of Payments

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Current Account

- Net exports of goods and services, *(the difference in value of exports minus imports, which can be written as)* **NX**,***(1)***
- Net investment income
- Net transfers

→ *Largest component: Net Exports*

Factors that Determine Current Account

1. **Change in Economic Growth Rates/National Income**
   - Higher domestic growth → more demand overall → more demand for imports too!
   - Higher foreign growth → more demand for exports
   - Relative economic growth rates determine if imports or exports rise
2. Change in relative prices or inflation
3. Change in tastes and preferences
4. Change in comparative advantage

Factors that Determine Current Account

1. Change in Economic Growth Rates/National Income
2. **Change in relative prices or inflation**
   - Relative prices determine comparative price of imports and exports
   - Higher domestic inflation
     - Exports are relatively more expensive for foreigners now: Exports will fall
     - Imports are relatively cheaper for domestic consumers: Imports will rise
3. Change in tastes and preferences
4. Change in comparative advantage

Factors that Determine Current Account

1. Change in Economic Growth Rates/National Income
2. Change in relative prices or inflation
3. **Change in tastes and preferences**
   - If buyers' preferences change for a good – if it is a traded good, then net exports will be impacted
   - Perception that Chinese products are of poor quality → buyer's demand for them may decline
4. Change in comparative advantage

Factors that Determine Current Account

1. Change in Economic Growth Rates/National Income
2. Change in relative prices or inflation
3. Change in tastes and preferences
4. **Change in comparative advantage**
   - Increases in productivity via technological advancements, lower production costs, and improved human capital change comparative advantage and may impact net exports

Capital Account

Because the capital account deals with financial flows, the most important factor affecting it will be **interest rates**

- Determine the return on financial assets in a country
- Investors chasing “highest return” will move financial assets to countries with highest interest rates

Key Takeaways

- The balance of payments measures the economic interaction a country has with global markets
- It is comprised of the Current Account and Capital Account
- Current Account – trade in goods and services
- Capital Account – financial flows

Principles of Macroeconomics Module 7.2

Capital Flows, Trade and Global Markets

In this video…

- In this video we will discuss Net Exports, Net Capital Flows, and how the two are linked

Imports, Exports and Trade

- Net Exports = Exports – Imports
  - Net Exports < 0: Trade deficit → Exports < Imports
  - Net Exports > 0: Trade surplus → Exports > Imports

Factors that determine Export and Import Volumes

- **Tastes and preferences at home and abroad**
- Prices of goods at home vs. abroad
- Exchange rates
- Income of households
- Transportation costs
- Gov’t policies towards trade

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Flows of Financial Resources: Net Capital Flows

- Capital flows → movement of financial assets between home and abroad
  - Stocks, bonds, real estate, ect.

Net Capital Flows = Purchase of Foreign Assets by Domestic Residents – Purchase of Domestic Assets by Foreign Residents

Flows of Financial Resources: Net Capital Flows

- Net Capital Inflow: Home country is receiving more foreign financial investment than it is sending out to other countries

- Net Capital Outflow: Home country is sending out more financial investment than it is receiving

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Types of Foreign Investments

- Foreign Direct Investment → Foreign entity's investment in capital/machines/factories in domestic market (business operations by foreign entity)

- Foreign Portfolio Investment → Foreign entity's investment in financial assets in domestic market (business operations by domestic entity)

Factors that influence Net Capital Flows

- **The real interest rates being paid on foreign assets.**
- The real interest rates being paid on domestic assets.
- The perceived economic and political risks of holding assets abroad.
- The government policies that affect foreign ownership of domestic assets.

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Equating Net Exports and Net Capital Flows

- **Recall in Balance of Payments**
  - Current Account → Net Exports (NX)
  - Capital Account → Net Capital Flows (NC)
  - Net Exports and Net Capital Flows must offset each other for BOP = 0

Equating Net Exports and Net Capital Flows

- When a nation is running a trade surplus (NX > 0), it will be using the foreign currency to purchase foreign assets. Thus, capital is flowing out of the country (NC > 0).

- When a nation is running a trade deficit (NX < 0), it must be financing the net purchase of these goods by selling assets abroad. Thus, capital is flowing into the country (NC < 0).

Equating Net Exports and Net Capital Flows

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Equating Net Exports and Net Capital Flows

Every international transaction involves exchange:

- When a seller country transfers a good or service to a buyer country (export) the buyer country gives up some asset to pay for the good or service.
- Net value of the goods and services sold by a country (net exports) must equal the net value of the assets acquired (net capital flow).
- Real exchange rates will adjust to equate NX and NC

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Tariffs and Quotas

- Sometimes, governments are concerned with competition from abroad, especially when it affects domestic production

- They will set up trade barriers to make it more difficult/costly to import goods
  - Tariffs: Taxes on imports
  - Trade quotas: Limits on the total volume of imports that can enter the country

- Trade barriers may benefit individual firms or industries domestically, but they are costly to the economy as a whole
  - Decrease the total amount of trade that occurs between countries
  - Increase the price of the traded good
  - Hinder the benefits of specialization and comparative advantage

Key Takeaways

- In an open economy – goods markets (net exports) and financial markets (net capital flows) are closely linked
- The real exchange rate will adjust to equilibrate the NX-NC market
- Trade barriers are used to help domestic producers, but hurt the economy as a whole

Exchange Rates and Net Exports

Principles of Macroeconomics
Module 7.2 (b)

Net Exports and Exchange Rates

- Recall that Net Exports: Exports – Imports

- One of the factors that affects export and import volumes are exchange rates

- **Exchange rates:** Value of one country's currency in terms of another country's currency

Example

- You can use **1 US dollar to buy 0.87 Euros**
- The exchange rate for is 1USD: 0.87 EUR
  - One USD is worth 0.87 EURs

Example

- If you can use **1 US dollar to buy 0.87 Euros** then you can also say:
  - 1 Euro will buy you 1.15 US dollars
  - 1 USD = 0.87 EUR→ **1 EUR= 1/0.87 USD = 1.15 USD**

Example

- Now assume that the exchange rate changes as such:
- **1 USD will now buy you 0.95 EUR**

    - The value of USD has increased
    - You can buy more Euros with that same 1 USD
    - The USD has appreciated

Example

- This also tells you that if:
- **1 USD will now buy you 0.95 EUR**
- **1 EURO will buy you 1.05 USD**

    - The value of Euro has decreased
    - You can buy less USD with that same 1 EUR
    - The EUR has depreciated

Exchange Rate Impact on Trade

- If the value of USD has increased: (0.87 EUR to 0.95 EUR)
- Value of EUR has decreased: (1.15 USD to 1.05 USD)
  - The value of US goods sold in Europe has increased
  - US goods are more expensive in Europe
  - US exports to Europe will decrease

  - Appreciation of USD will lead to a decrease in exports (to Europe)
  - Depreciation of EUR will lead to a decrease in imports (from US)

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Exchange Rate Impact on Trade

- If the value of USD has increased: (0.87 EUR to 0.95 EUR)
- Value of EUR has decreased: (1.15 USD to 1.05 USD)

- US Exports Decrease, Imports Increase = Net Exports Decrease
- EU Exports Increase, Imports Decrease = Net Exports Increase

Exchange Rates and Trade

Value of USD INCREASES	US Exports	Decrease	US Net Exports Decrease
	US Imports	Increase	

Value of EUR DECREASES	EU Exports	Increase	EU Net Exports Increase
	EU Imports	Decrease	

Exchange Rates and Trade

Value of USD DECREASES	US Exports	Increase	US Net Exports Increase
	US Imports	Decrease	
Value of EUR INCREASES	EU Exports	Decrease	EU Net Exports Decrease
	EU Imports	Increase	

Principles of Macroeconomics Module 7.3

Foreign Exchange Market and Exchange Rates

Exchange Rates

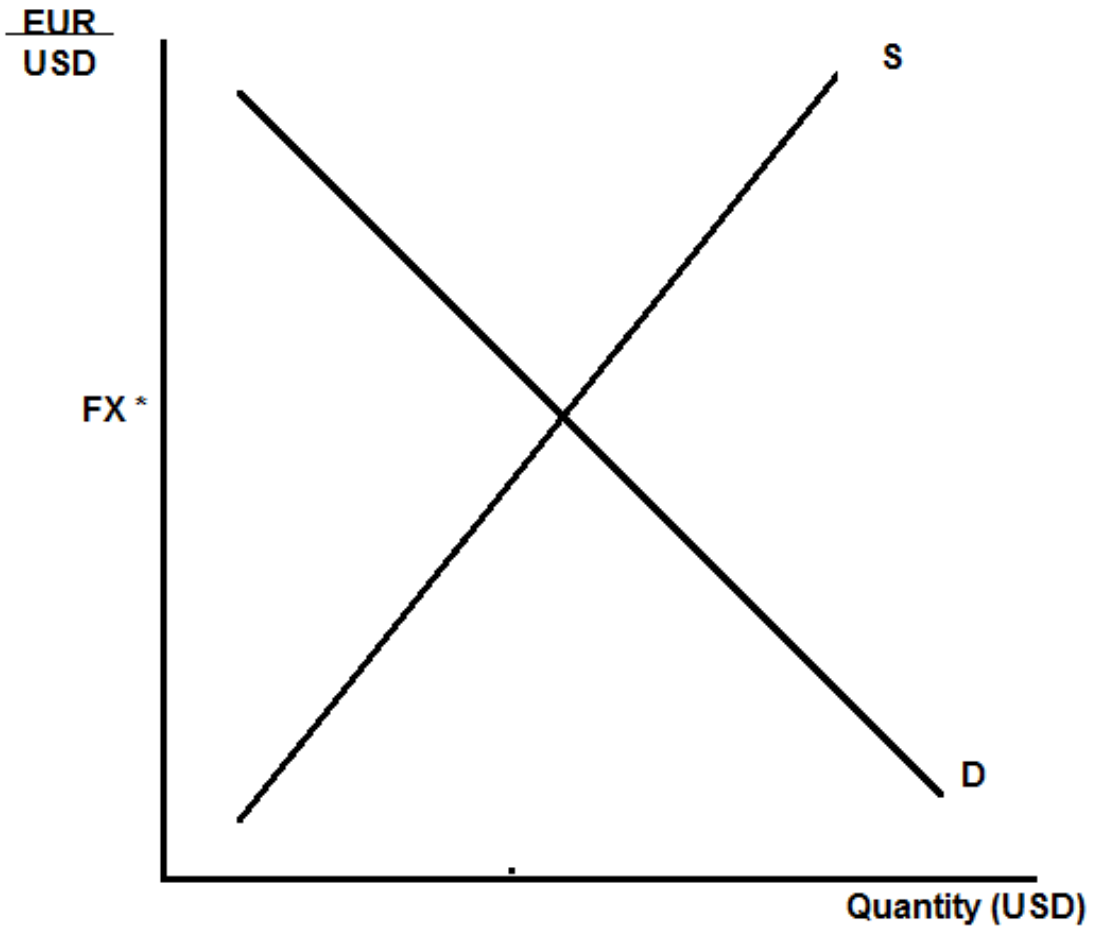
- Exchange rates give the price of one currency in terms of another currency
- EUR/USD → Amount of euros (EUR) that can be purchased with one US dollar (USD)
- Exchange rates are determined by the relative supply and demand for the two currencies

Floating vs. Fixed Exchange Rate Policies

- **Floating exchange rates:** value of the exchange rate is determined by market forces (supply and demand)

- **Fixed exchange rates:** the value is predetermined by a government body and the supply of currency is altered to maintain the fixed exchange rate

Demand and Supply of Foreign Exchange



- Demand for USD: Demand for USD abroad comes from foreigners wanting to buy US exports

- Supply of USD: Supply of USD to foreign exchange markets is determined by US consumers' demand for foreign goods, or imports
  - For US consumers to buy European goods, they need Euros
  - To get Euros, they sell USD in exchange

- Equilibrium Exchange Rate: where demand for USD from abroad meets supply of USD in foreign exchange markets

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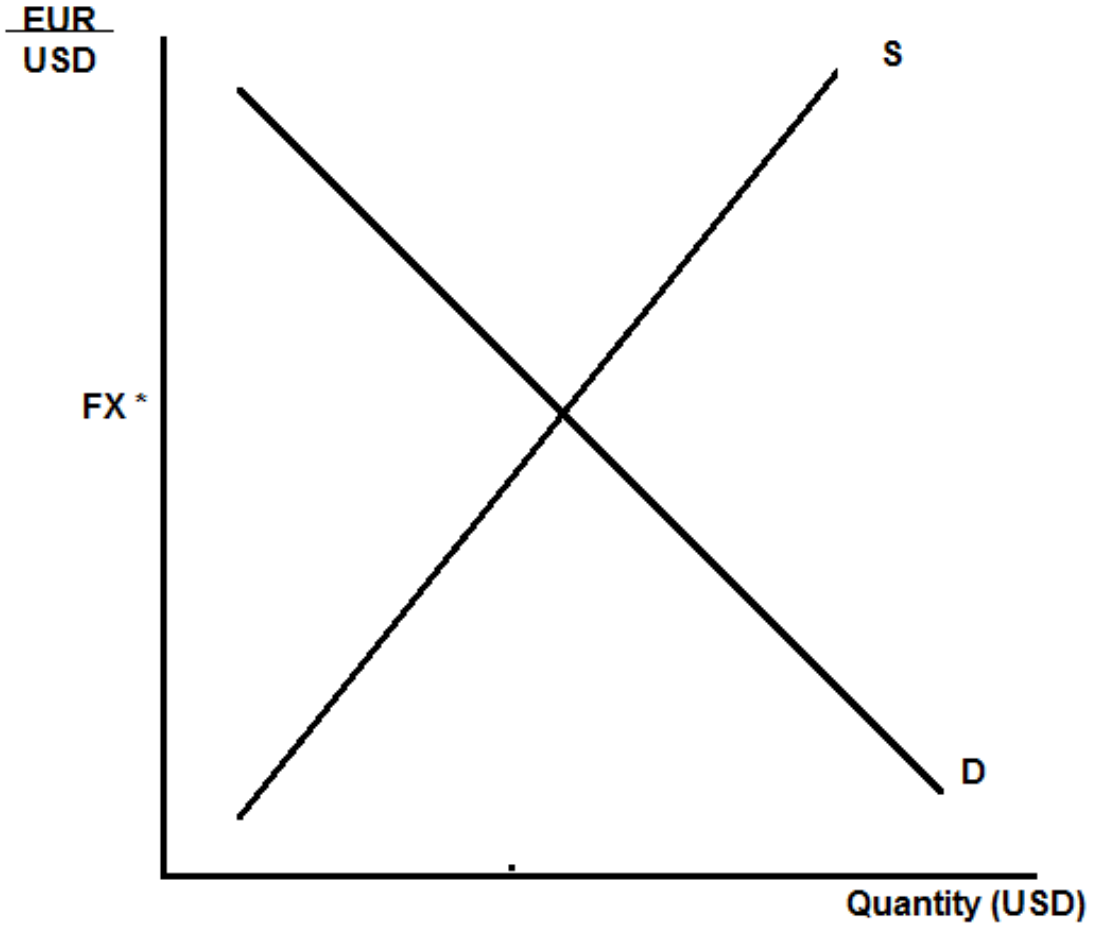

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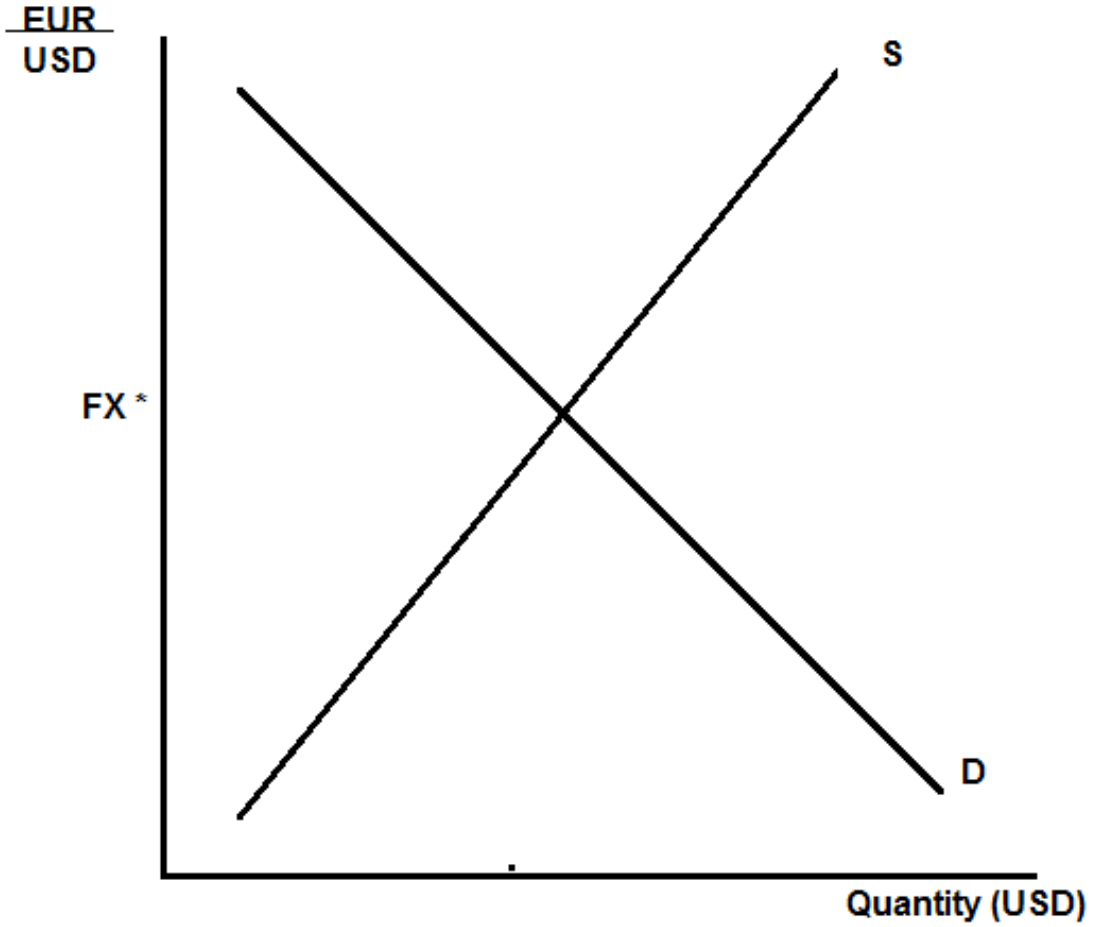

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Exchange Rate Determination

Factors that affect the demand or supply of USD to foreign exchange markets will influence the exchange rate

Exchange Rate Determination

- **Inflation Rates**
  - If the US has lower inflation than Europe – USD will appreciate against the Euro
  - Lower inflation means that the value of each dollar is higher – people need to hold less USD to make the same transactions
  - With less USD in circulation – each USD is more valuable, and therefore its value against other currencies rise

Exchange Rate Determination

- **Interest Rates**
  - Higher interest rates will attract more financial capital from abroad
  - Net capital inflow increases demand for USD and therefore pushing up the value of USD relative to other currencies

Exchange Rate Determination

- **Country's Current Account Balance**
  - Current account reflects the trade balance – the demand for exports and supply of imports
  - Current account surplus means the country is exporting more than importing, leading to a relatively higher demand for USD– increasing the value of USD relative to other currencies

Exchange Rate Determination

- **Terms of Trade**
  - Terms of trade refer to the relative price of exports to imports
  - Higher terms of trade reflect export prices rising more than import prices
  - Because this will reflect greater demand for the country's currency to pay for those exports, the value of the currency will rise and the exchange rate appreciates

Exchange Rate Determination

- **Political Stability**
  - A country with more political stability and less risk will attract more foreign investors and foreign capital
  - The inflow of foreign capital leads to an increase in the value of the currency, or exchange rate appreciation

Exchange Rate Determination

- **Government Debt**
  - Countries with high levels of government debt will have a difficult time attracting foreign capital inflows
  - Foreign investors sell bonds if they predict increasing government debt, thereby leading to a weaker exchange rate

Exchange Rate Determination

- **Recession**
  - A recession corresponds usually to lower interest rates
  - With lower interest rates, foreign capital will leave the economy, searching for higher returns elsewhere
  - This net capital outflow leads a decrease in the value of the currency, or exchange rate depreciation

Key Takeaways

- Exchange rates reflect the relative price of one currency in terms of another

- Demand for and supply of currency are determined by market forces, and the exchange rate equilibrates to clear the market

- Certain domestic economic conditions determine the exchange rate, as well as forces outside of the domestic economy