# International trade & globalization, pt. I

## EC 103–02

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# Motivation

# Housekeeping

**Required readings**:

- `Openstax, ch. 16`
    - Sections 16.1 & 16.4

# "Open" macroeconomics

No single economy works in a **vacuum**.

Events (*economic or not*) that happen in one country can have varied **repercussions** on other parts of the world.

Each day, **billions** of dollars of goods, services, and financial assets flow from one country to another in the **international trade market**.

- *But why do countries trade with each other?*

Either because they **cannot** produce these goods and services by themselves, or due to other countries having **lower costs** at producing some goods and services (so importing them is cheaper).

# "Open" macroeconomics

From a *macroeconomic* perspective, purchasing a domestically-produced item or importing the same item are **not** that different.

- The main difference between these two transactions is **currency exchange**.
    - While a *domestic* transaction is paid for with *domestic* currency, an *international* transaction must happen by using *exchange rates*.

When the United Kingdom imports bananas from Ecuador, the Ecuadorian exporters **cannot** spend *pounds* in Ecuador.

The same happens when the US sells tractors to England. US residents **cannot** pay their rents using *pounds*.

> The **exchange rate** is the *price* of one country's currency in terms of another country's currency. It is the *ratio* at which two currencies are traded for each other.

# Exchange rates

# Exchange rates

A **nominal** exchange rate between two countries tells us **how many units** of the *first* country's currency one can buy for 1 unit of the *second* country's currency.

- *Ordering matters!*

As an example, consider the US dollar-per-pound exchange rate. If its value is 2 US dollars per pound, it means that 1 pound is worth 2 US dollars.

Conversely, we can also say that 1 US dollar is worth 0.5 pound.

# Exchange rates

`A quick Google search ...`

`Has it always been this way?`

# Exchange rates

If we use $E$ to represent exchange rates, we can use the following *notation*:

$$E_{a/b}$$

Reading it as "*the exchange rate in currency a per 1 unit of currency b.*"

For instance, the *US dollar-per-euro* exchange rate is **0.99**.

We can write it as $E_{US\$/e} = 0.99$.

- Meaning that one euro is worth .99 US dollars.
- So what is $E_{e/US\$}$?

# Exchange rates

When analyzing prices of regular goods and services, we say that a price has either *increased* or *decreased*.

- With exchange rates, the **terminology** is a bit different.

We say that a country's currency **appreciates** when one unit of that currency can buy **more** units of a foreign currency than before.

- Some may say that the currency became "*stronger*."

And a country's currency is **depreciating** when one unit of that currency can buy **less** units of a foreign currency than before.

- Some may say that the currency became "*weaker*."

An *appreciation* of one currency is the **same** as a *depreciation* of the other currency.

# Exchange rates

`A look at the data`

# Exchange rates

To summarize:

- When $E_{a/b}$ goes up, currency $b$ **appreciates**, and currency $a$ **depreciates**.
- When $E_{a/b}$ goes down, currency $b$ **depreciates**, and currency $a$ **appreciates**.

# Exchange rates

Who *benefits* from a **stronger** (i.e., appreciated) currency?

Let us take the example of an **appreciation** of the *US dollar* relative to other international currencies.

In the case of:

1. US exporters selling abroad;
2. International firms selling to the US economy;
3. US tourists abroad;
4. Foreign tourists visiting the US;
5. US investors considering investment opportunities abroad;
6. Foreign investors considering injecting money in the US economy.

# Exchange rates

Moral of the story:

When thinking about exchange rates, a **stronger** currency is *not necessarily* a good thing.

- It will depend on the *sector* and on the *economic activity* at hand.

# Exchange rate policies

# Exchange rate policies

The way in which countries set the **value** of their currencies internationally can differ substantially.

When national governments **set** a country's exchange rate, we call it a **fixed exchange rate**.

- And instead of talking in terms of *appreciation* or *depreciation*, we say that the government has engaged in *revaluation* and *devaluation* policies, respectively.

If, instead, the government does not intervene in the exchange rate, it will be determined by **market demand** for the national currency.

- In practice, the so-called **foreign exchange market** is where those who desire to use one currency to buy a different one will privately trade with those who can sell the currency they desire.
- When this is the case, we have **floating exchange rates**.

# Exchange rate policies

Let us focus on **floating exchange rates** first.

There are **three** main reasons to buy a foreign currency:

1. For purchasing **goods/services** from another country, where that other currency is used;
2. For buying **assets** (financial or not), thus receiving income from it in the local currency;
3. For **holding** the currency, hoping that it will increase in value (appreciate) at some point.

Thus, currency demand may happen in the markets for **goods and services**, for **assets**, and in the **foreign exchange** market.

In *any* of these markets, exchange rates will change whenever there are opportunities for **arbitrage**.

> **Arbitraging** implies buying something where/when it is cheap, and selling when/where it becomes more expensive.

# Exchange rate policies

Thus, a currency will **appreciate** when there is **higher demand** for it, relative to other currencies.

Conversely, a currency will **depreciate** when there is **lower demand** for it.

# Exchange rate policies

No theory can explain with **precision** what exchange rates will look like over any time horizon.

However, there are **tendencies**.

For instance, in the **goods/services** market, a country whose goods and/or services have a higher quality or are relatively cheaper—due to higher productivity or lower labor costs—will see its currency **appreciate** over time.

Thus, consumers look at **relative prices**.

- More **demand** for its currency, to purchase it products → higher **value** → currency **appreciation**.

Countries that run a **trade surplus** tend to see their currencies appreciate over time.

# Exchange rate policies

In the **asset market**, how much foreign investors will spend in another country depends on its **attractiveness**.

In general, investors look for assets with the highest financial returns possible, so they will look at the country's **interest rates**.

Of course, **other factors** also matter for investment decisions abroad.

- Safety, liquidity, tax regulations, etc.

# Exchange rate policies

Lastly, exchange rates are also driven by **speculation** in foreign exchange markets.

> **Speculation** implies purchasing assets with the goal of *reselling* them in the future, at a higher price.

Several participants in the foreign exchange market are *speculators*.

- They hold foreign currencies in order to sell them when they appreciate.

For instance, if a Brazilian speculator bought US dollars in 2012, paying 2.15 BRL for US$ 1, today this 1 dollar will be sold by 5.31 BRL.

International assets (e.g., stocks and bonds) are traded at a high volume every day, making daily exchange rates basically **unpredictable**.

Next time: Trade balances; balance of payments