

Economics for Business Environment

Unit 10

Nikolaos Tzivanakis

`nikos.tzivanakis@coventry.ac.uk`

March 22, 2019

Lecture Outline

- ① Introduction
- ② Trade
- ③ Open Economies
- ④ Conclusion

Introduction

- Modern economic agents do not only participate in domestic economic activities
- Most of the goods we consume we produced (or partly produced) in another country
- Our olive oil might be Greek, the wine we drink French, the coffee Brazilian etc.
- Many times we interact with economic agents from another country

Introduction

- Each country has their own production
- Similar to firms, countries decide how to allocate their resources optimally
- How and why countries decide to specialise in the production of one good (or some goods) and not another?

Production Possibilities

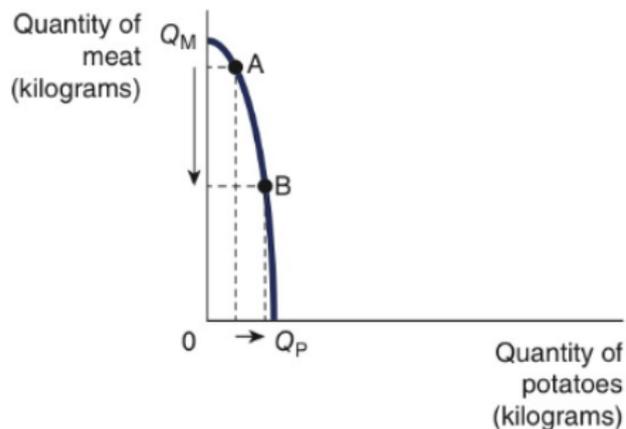
- Assume an economy where there are only two goods: beef and potatoes.
- Silvia is a cattle farmer and Johan is a gardener.
- Each want to consume both goods.

Production Possibilities

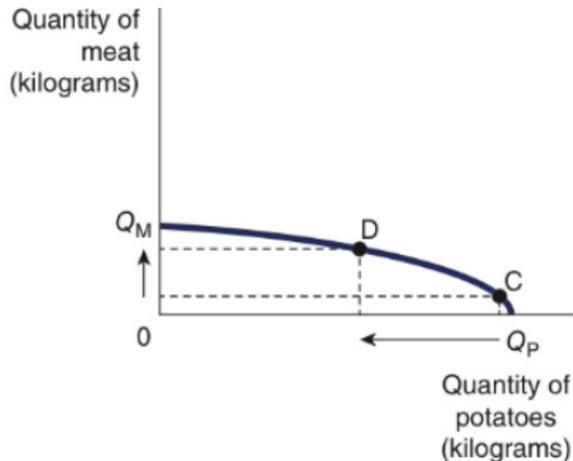
- Assume that initially they decide to have nothing to do with each other.
- Johan, the gardener, can raise cattle and produce meat but he is not very good at it.
- Similarly, Silvia decides to plant potatoes in part of her field but it is not the proper field and the crop is not very good.

Production Possibilities

The production possibilities for Silvia and Johan are:



(a) Silvia's PPF



(b) Johan's PPF

Production Possibilities

- If Silvia devoted all her time and resources to producing potatoes she could produce Q_M , the vertical intercept.
- If she makes the decision to divert resources to the production of meat, the sacrifice in terms of lost meat output is relatively high compared to the gains in output of potatoes as shown by the move from point A to point B
- Johan's situation is reverse.
- Economically, it would be more efficient for them to cooperate and each should specialize in what they do best.

Production Possibilities

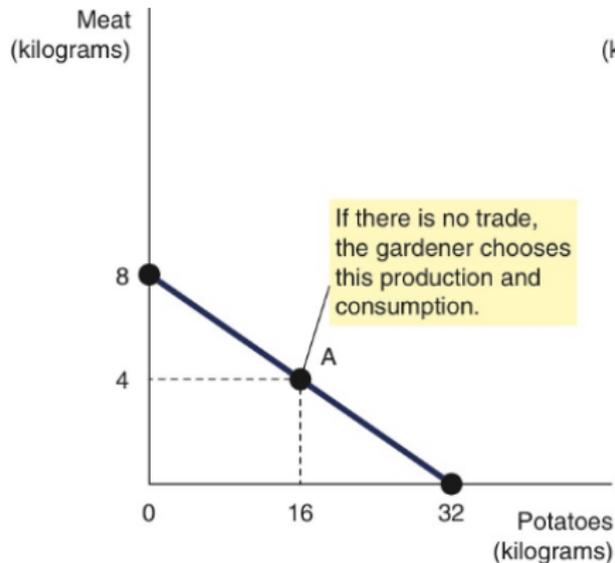
They each work 8 hours every day, 6 days per week and can produce the following:

The Production Opportunities of Johan the Gardener and Silvia the Farmer

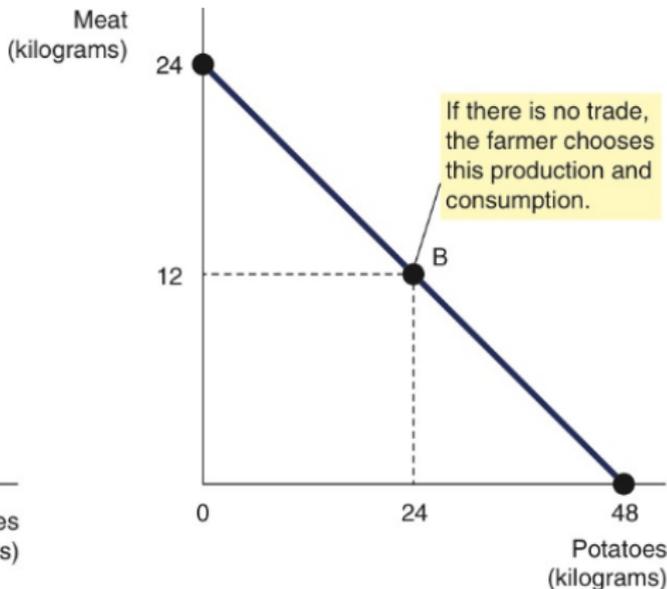
	Time needed to make 1 kg of:		Amount of meat or potatoes produced in 48 hours	
	Meat	Potatoes	Meat	Potatoes
Johan	6 hrs/kg	1.5 hrs/kg	8 kg	32 kg
Silvia	2 hrs/kg	1 hr/kg	24 kg	48 kg

Consumption without Trade

In this scenario the two agents consume according to this graph:



(a) The gardener's production possibilities frontier



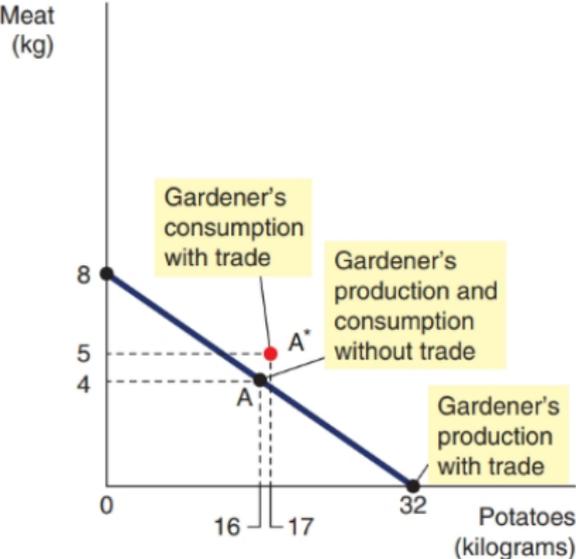
(b) The farmer's production possibilities frontier

Trade Proposal

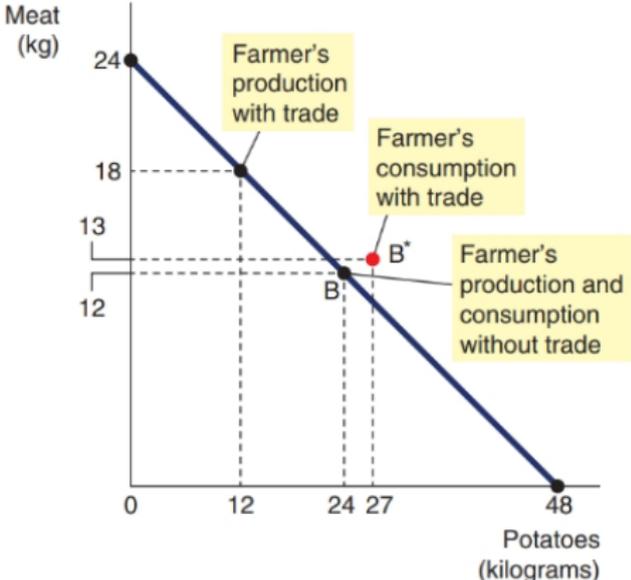
- Silvia studying their production comes up with the following idea:
- Johan should focus on producing only potatoes while she would focus more on producing beef.
- Johan would trade 15 kg of potatoes for 5kg of meat.
- As a result, Silvia can now focus more on the production of meat and they can both end up to a consumption bundle higher than their initial one.

Consumption with Trade

In this scenario the two agents consume according to this graph:



(a) The gardener's production and consumption



(b) The farmer's production and consumption

Gains from Trade

The Gains from Trade: A Summary

	Johan		Silvia	
	Meat	Potatoes	Meat	Potatoes
Without trade:				
Production and consumption	4 kg	16 kg	12 kg	24 kg
With trade:				
Production	0 kg	32 kg	18 kg	12 kg
With trade	Gets 5 kg	Gives 15 kg	Gives 5 kg	Gets 15 kg
Final consumption	5 kg	17 kg	13 kg	27 kg
Gains from trade:				
Increase in consumption	+1 kg	+1 kg	+1 kg	+3 kg

Comparative Advantage

The idea here is to think:

- Who can produce more of one good at a lower cost? Who has the advantage?
- **Absolute Advantage**: a producer can produce a good using fewer inputs than another.
- In our example, Silvia has the absolute advantage in both goods. She needs 2 hours to produce 1kg of meat (less than the 6 hours for Johan) and 1 hour for 1kg of potatoes while Johan needs 1.5 hours.

Comparative Advantage

The Opportunity Cost of Meat and Potatoes

	Opportunity cost of:	
	1 kg of meat	1 kg of potatoes
Gardener	4 kg potatoes	0.25 kg meat
Farmer	2 kg potatoes	0.5 kg meat

- Johan has a lower OC of producing potatoes, he only needs to sacrifice 0.25kg of meat.
- Silvia has a lower OC of producing meat, she only needs to sacrifice 2kg of potatoes.
- Differences in the OC, i.e. comparative advantage, create the gains from trade

Comparative Advantage and Trade

- **Comparative Advantage:** the comparison among producers of a good according to their opportunity cost. A producer is said to have a comparative advantage in the production of a good if the opportunity cost is lower than that of another produce
- Johan buys 5kg of meat for 15kg of potatoes (3kg of potatoes for 1kg of meat) that is lower than his OC (4kg).
- Silvia buys 15kg of potatoes for 5kg of meat (1/3kg of meat for 1kg of potatoes) lower than her OC (0.5kg)

Open Economies

- Most Economies cannot survive and/or grow on their own
- We import and export goods from and to other countries.
- In 2013 the US sold about \$4.2 trillion worth of stuff to people living in other countries and bought about \$4.2 trillion worth of stuff.
- Economists have a way to keep track of these transactions. *The Balance of Payments*. In the BoP there are different accounts for different categories of transactions.

Key Terms for Open Economies

- ***Balance of Payments (BoP)***: to keep track of the transactions with other countries. What we bought from them vs what they bought from us.
- ***Current Account***: Keeps track of transactions in goods and services, international transfers and factor income.
- ***Financial Account (or Capital Account until a few years ago)***: Keeps track of purchases and sales of assets from and to foreigners.
- ***Trade Balance***: very common in the news, but incomplete measure, keeps track only of transactions in goods.

Key Terms for Open Economies

- Depending on the difference between exports and imports we can have *balanced* trade ($NX = 0$), trade *surplus* ($NX > 0$) or trade *deficit* ($NX < 0$).
- In the ***financial account*** we keep all the transactions that refer to assets such as stocks, bonds etc.
- ***Net Capital Outflow***: The difference between the foreign assets bought by domestic residents and the domestic assets bought by foreigners.
- In this account you will find other important terms in economics and finance such as *Foreign Direct Investment* (FDI, eg BMW opens a production factory in the UK) or *foreign portfolio investment* (French citizens buy assets located in another country).

Exchange Rates

- To make all these transactions we need money, but most countries use different currencies.
- As we trade goods and services, we trade currencies.
- Think of the euro or the pound as a good. There is a demand and a supply for them.
- The market in which we trade currencies is the Foreign Exchange Market.
- The value (or price) of a currency is the ***Nominal Exchange Rate***

Exchange Rates

- **Nominal Exchange Rate:** the rate at which a person can trade the currency of one country for the currency of another
- If you go to a bank today you might see an exchange rate of €1.15 per £1
- This means you can buy 1.15 euros with 1 GBP.
- Or if we reverse this £0.87 per €1
- Meaning that 1 euro can buy 0.87 GBP

Real Exchange Rate

- **Real Exchange Rate:** the rate at which a person can trade the goods and services of one country for the goods and services of another
- The real and the nominal exchange rate are closely related.
- In fact the real exchange rate is the nominal exchange rate taking into consideration the price of the goods and services between the trading countries.
- Real Exchange Rate = Nominal Exchange Rate * $\frac{P_{domestic}}{P_{foreign}}$

Real Exchange Rate Example

- A kilo of British wheat sells for £1 and a kilo of European wheat sells for €3
- The nominal exchange rate is €2 per £1
- Real Exchange Rate = €2 per £ * $\frac{\text{£1 per kilo}}{\text{€3 per kilo}}$ = $\frac{2}{3}$ kilo of European wheat per kilo of UK wheat
- Meaning that the UK wheat is 2/3 as expensive as the European.

Changes in the Values of Currencies

- **Appreciation:** An increase in the value of a currency as measured by the amount of a foreign currency it can buy.
 - *Appreciation* is usually a good thing. We say that the currency strengthens as it can buy more of a foreign currency
- **Depreciation:** A decrease in the value of a currency as measured by the amount of a foreign currency it can buy.
 - *Depreciation* is usually a bad thing. We say that the currency weakens as it can buy less of a foreign currency

Exchange Rates

- However depending on the current state of the economy depreciation could be a good thing while appreciation could be bad for the economy.
- If our economy is an exporter (we export more than we import) a currency appreciation could be bad.
- Let's say using the numbers in the previous example that the UK exports cheddar that costs £5 per kg.
- An EU citizen would need €5.75 to buy a kilo of cheddar.

Cheddar and GBP appreciation

- If GBP appreciates, let's say now that the exchange rate is €1.25 per £1
- An EU citizen would need €6.25 to buy the same amount.
- A 10% (almost!) increase in the price
- As we know from the law of demand when $P \uparrow \Rightarrow Q_D \downarrow$
- Foreigners will demand less and our exports would decrease and as a result $AD \downarrow$ (remember $Y = C + I + G + NX$)

Cheddar and GBP depreciation

- If GBP depreciates, let's say now that the exchange rate is €1.05 per £1
- An EU citizen would need €5.25 to buy the same amount.
- A 10% (almost!) decrease in the price
- As we know from the law of demand when $P \downarrow \Rightarrow Q_D \uparrow$
- Foreigners will demand more and our exports would increase and as a result $AD \uparrow$

Exchange Rate Regimes

- Countries may choose to manage the value of their currency with respect to other currencies
- Depending on how they decide to operate in this area they belong to different *exchange rate regimes*.
- The main two types are **float** and **fixed** exchange rate regimes.

Fixed Exchange Rate

- **Fixed exchange rate** is when the value of one currency is linked with the value of another currency in a fixed ratio.
- This is what happened before the introduction of the EURO in all EU countries. They fixed the value of the local currencies to a fixed ratio to transfer to EURO.
- The *Bretton Woods Agreement* (post WWII till early 1970s) fixed the exchange rates of participating countries (44) to the value of the US dollar.

Float Exchange Rate

- **Float exchange rate** is when the value of one currency is determined by its demand and supply in the foreign exchange market (FOREX).
- Most countries though use monetary policy to manage their exchange rate to avoid excessive appreciation or depreciation of their currency.
- This regime is called ***managed float*** and is the most common practice.

What We Learned Today: Trade

- There are two ways to compare the ability of two people in producing a good. **Absolute advantage** and **comparative advantage**.
- *The gains from trade are based on comparative advantage, not absolute advantage.*
- *Trade makes everyone better off* because it allows people to *specialise* in those activities in which they have a *comparative advantage*.
- The principle of comparative advantage applies to countries as well as to people.

What We Learned Today: Exchange Rates

- Net exports are the value of domestic goods and services sold abroad minus the value of foreign goods and services sold domestically.
- The nominal exchange rate is the relative price of the currency of two countries
- When the nominal exchange rate changes so that each unit of domestic currency buys more foreign currency, the domestic currency is said to appreciate or strengthen (the opposite is called depreciation).

What We Learned Today: Exchange Rates

- The real exchange rate is the nominal exchange rate adjusted for the price differences in the domestic and the foreign market.
- There are two main categories of exchange rate regimes. The float and the fixed.
- Most common today is the managed float rate.