Ch 5: International Trade

We Talked A Little About Trade

We talked about the basis for trade, differences in opportunity costs, but we need to expand on that idea.

Economics has Many Models of Trade

- They all have some limited support
- None really explains everything
  - Some are good at intra(inside)national trade
  - some are good at peer-to-peer international trade
  - Some are good at everything but final goods

We are Sticking to Heckscher–Ohlin

- I won't show you the model, just the implications.
  - The model is a few classes past this one.
- Heckscher–Ohlin (H-O) uses the ideas from Chapter 2 about PPFs and comparative advantage
  - All countries use the same technology
  - But countries have different endowments – different amounts of labor and physical capital are most common.
  - Does not require mobility of labor or capital – but it helps speed up factor price equalization (wage rates and interest rates)

Rough Outline of H-O Idea

- Countries have different endowments of labor and capital (or even timber and coal, etc.)
- Countries with high labor endowments have a comparative advantage in labor intensive goods (Bangladesh and Clothing)
- Countries with high capital endowments have a comparative advantage in capital intensive goods (US and airplanes)

H-O works well within a country but not necessarily between. It is like you need more than just a market to make it work.

H-O is Static

- Does not endogenously (within the model) allow endowments to change.
- But, people, e.g., Paul Romer (Nobel 2018), have models that allow for endogenous technological change and factor changes.
    - Not all these models are strictly trade models.
    - Romer is more about growth

But there are some Easy Extensions of H-O

Rybczynski Theorem – Increases in a factor of production, more than proportionally increase output of goods that use that factor intensively.

Huh?

- If you get more low skill immigrants, you increase output of goods that use low skill workers by a more than proportional amount.
- Upshot – low skill immigration probably allows lower skill people already in a country to have more employment possibilities.

And Another

Stolper-Samuelson – Goods prices drive factor prices

Huh?

- If the price of forest products falls, then wages in the forest products industry falls.
- But, wait, can't I change jobs?

Yea, but

Factor Price Equalization Theorem: Even without factor mobility, factor prices will equalize.

Huh?

- Yes, you can change jobs but the changes echo
- Only seems to work with similar countries (US vs CA)

Keep these ideas in mind

These are all ideas from classes that come after this, but keep them in mind when we are looking at supply and demand graphs.

- There are some odd implications in macro because "Principle #10: One person's spending is another person's income."

A Supply and Demand Model

- This is about perfect competition.
- All countries are “small”
  - No one country can manipulate world price by altering sales
  - No one country can manipulate world price by altering purchases.
- They can alter prices within their country.

Key Intuition

- If the domestic price is lower than the world price – export
  - Sellers have the choice of selling domestically or internationally.
  - They pick the high price and don't sell at the domestic price.
- If the domestic price is higher than the world price – import.
  - Buyers have the choice of buying from domestic or international producer.
  - They pick the low price and don't pay the high price that domestic producers want.

Trade equalizes domestic and international prices.

Exporting

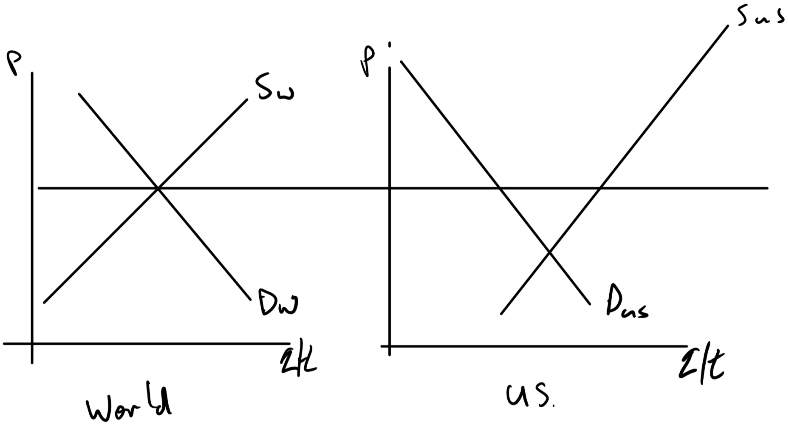

Figure 1:

Keep in Mind

- Price of output is going *up* for sellers.
- Stolper-Samuelson says the prices of factors that are used intensively in creating the export good – increase.

See why there is political support for exporting when you work in an export industry?

Importing

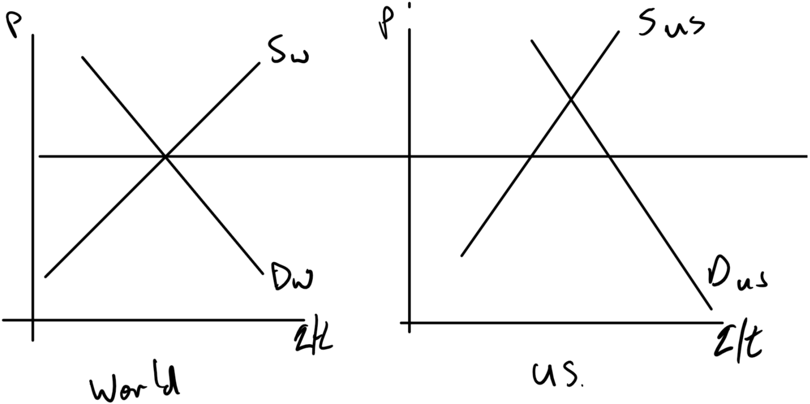

Figure 2:

Keep in Mind

- Price of output is going *down* for sellers.
- Stolper-Samuelson says the prices of factors that are used intensively in creating the imported good – decrease.

See why there is political support to close off imports when you work in an import competing industry?

But Are We Really Better Off?

- Can't tell by just looking but.
- We can do some welfare analysis (consumer and producer surplus) to see.
- Keep in mind that CS/PS is one form of welfare analysis (How well off we are) and that others are in use.
- CS/PS is great for one market at a time, when there are few linkages to other markets.

CS Basics

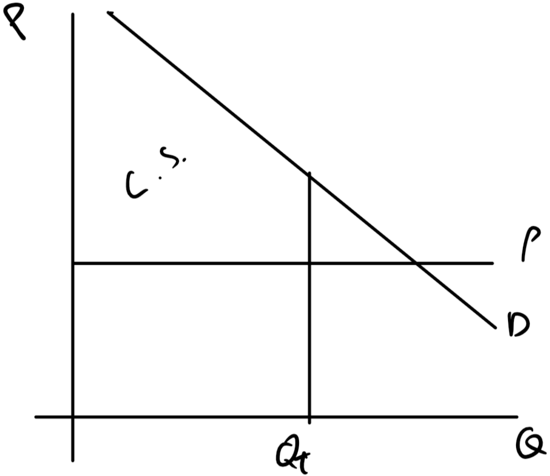

Figure 3:

Focus on

- The area above price, below demand up to quantity transacted.
- The benefits that buyers receive beyond what they paid for the good.
- The difference between what they were willing to pay and what they actually paid.
- More is better.

PS Basics

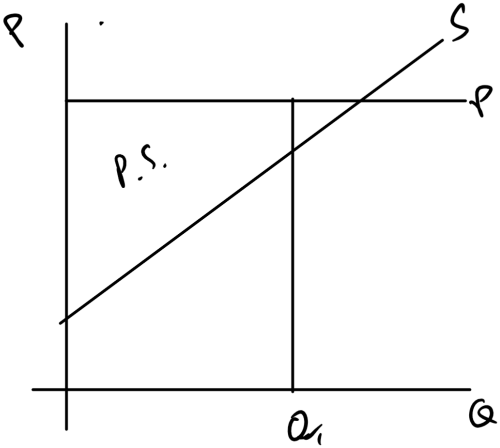

Figure 4:

Focus on

- The area below price, above supply up to quantity transacted.
- The benefits that sellers receive beyond what they sold the good for.
- The difference between what they were willing to sell goods for and what they sold them for.
- It is economic profits plus fixed cost.
- More is better.

Do export and imports make us better off?

- This CS/PS analysis does not look at the effect on factor markets, wages and rental rates (price of capital)
- Ignores effects on the rest of the world (ROW)

Welfare Changes from Exports

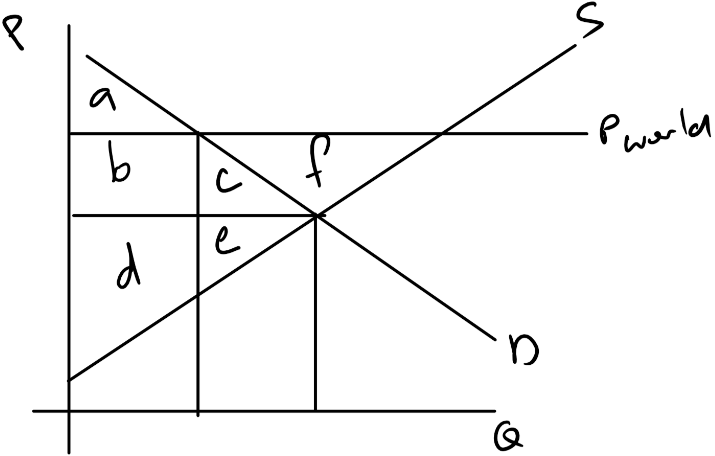

Figure 5:

Summary

- Consumers:
  - No trade: A + B + C
  - With trade : A
  - Ouch!
- Producers:
  - No trade: D + E
  - With trade: D + E + B + C + F
  - Woot!

Note that trade added F. That means in this market, society as a whole is better off, but domestic consumers are worse off.

Welfare Changes from Imports

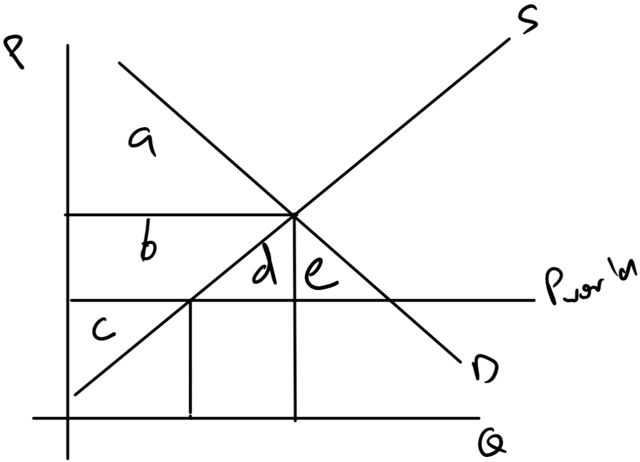

Figure 6:

Summary

- Consumers:
  - No trade: A
  - With trade : A + B + D + E
  - Woot!
- Producers:
  - No trade: B + C
  - With trade: C
  - Ouch!

Note that trade added D + E. That means in this market, society as a whole is better off, but domestic producers are worse off.

Politics Check-in

If ROW $>$ Domestic

- Sellers want to export
- People that work in export industry want to export
- Consumes want to keep the low domestic prices and don't want to export.

If ROW $<$ Domestic

- Buyers want to import
- People that work in the import competing industry don't want imports.
- Sellers want to keep the high domestic prices and don't want to compete with exports.

Principle 4: People usually respond to incentives, exploiting opportunities to make themselves better off.

What Can You Do

- Tariffs – Tax on Imports or Exports
- Quotas – Limitations on Imports or Exports
- Non-Tariff Barriers – Lots of things

Non-Tariff Barriers

Import Tariff

- ROW $<$ Domestic
- This is a tax on imports
- Intended to protect high cost domestic producers.

Import Tariff

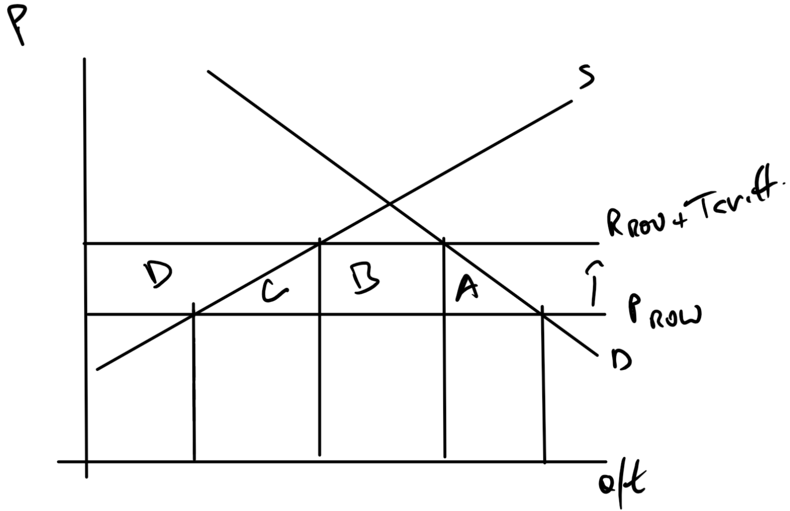

Figure 7: