Set Up

- Apple produces iPhones using labor from China, Taiwan, Thailand, Malaysia, Singapore, South Korea, the Czech Republic and US.
- Outsourcing production is becoming even more common.

Foreign Outsourcing or Offshoring

- Provision of a service of the production of inputs in different countries that are then assembled into a final good in another location.
- This differs greatly from final good trading. Instead we are looking at the trading of intermediate good trading.
- There are then several trade steps before final good is sold.
- Inshoring-bringing back production that was offshored. This is a recent trend in the US.
- Offshoring decision depend on two main things: skills of labor, wage of labor.
- Are there other reasons to offshore?

A Simple Offshoring Model

- Production order: R&D $\rightarrow$ component production $\rightarrow$ assembly $\rightarrow$ marketing and sales.
- High skilled: R&D, marketing and sales
- Low skilled: component production, assembly

Wages

- Let w_L=wage of low skilled labor in home.
- Let w_H=wage of high skilled labor in home.
- Let w_L^*=wage of low skilled labor in foreign.
- Let w_H^*=wage of high skilled labor in foreign.
- Assumption 1: Assume $w_L^* < w_L$ and $w_H^* < w_H$. Also, $\frac{w_L^*}{w_H^*} < \frac{w_L}{w_H}$
- Is this realistic?

Trade Costs

Home firm might send work abroad but needs to factor in:

- 1) higher prices to build a factor
- 2) Extra costs of communication and transport
- 3) Tariffs
- 2) and 3) are referred to as trade costs

Home outsources low level activities

- Assembly and production
- Why is supply upward sloping?
- Why is demand downward sloping?

Comparative Statics

- Let the cost of trade decreases.
- Both demand curves will rise!
- Home shift: As the least skill-intensive activities are offshored, home's relative demand for skilled labor increases.
- Foreign shift: New offshored tasks increase the relative demand for skilled labor.
- Note that the least skill intensive home activities shift to foreign where they are the most intensive activities.
- So, $\frac{H}{L}\uparrow$, $\frac{H^*}{L^*}\uparrow$, $\frac{w_H^*}{w_L^*}\uparrow$, $\frac{w_H}{w_L}\uparrow$
- Trade costs going down helps and hurts who??

The Politics and Future of Offshoring

- 2007 democratic primaries had candidates promising to end tax breaks for those who outsourced.
- Profits earned by overseas subsidiaries do not get taxed by US, provided that subsidiary stays overseas and does not appear on books for parent firm. Gives incentive to further invest in subsidiary, but not necessarily leading to move jobs overseas.
- Profits flow back in the form of financing for new things for the subsidiary.
- But multinational firms added more jobs in the US than abroad. Those jobs depend on outsourcing.

Inshoring

- 90% R&D jobs for US firms are kept in the US. Some of these jobs may be loss if inshoring begins.
- So, US firms will become less competitive on the world stage.
- Can changes that happen naturally that lead firms to bring back labor be good?
- What happens if the wage increases in China?

The Future of Offshoring

- Recent trends of onshoring or inshoring shows US avoids offshoring all activities.
- Which tasks do US firms usually keep at home?
- Some tasks and skills are learned from doing (safe from outsourcing).
- US has comparative advantage in: Education, Financial Services, Royalties, Telecom.

Chapter 8

Tariffs and Quotas Under Perfect Competition

Important Terms

- Trade Policy-government action meant to influence amount of international trade.
- Import tariffs-taxes on imports
- Import quotas-quantity limits
- Export subsidies-seller receives higher price than buyer pays
- World Trade Organization (WTO)- organization that governs international trade rules. Countries impose tariffs as a safeguard for industries against import competition. Before the WTO, there was GATT-General Agreement on Tariffs and Trade.

Important Terms

- GATT-established in 1947 to reduce barriers between nations
- Countries met in "rounds" to lower trade barriers between those specific countries.
- Uruguay round(happened in Uruguay) lasted 1986 to 1994. This round helped establish the WTO in 1995. The WTO is an expanded version of GATT and added rules that govern new things like service trading and intellectual property rights (IPR).
- The goal of the WTO: Keep tariffs low. Countries can have high tariffs under certain conditions.

Main Provisions

- All countries treated the same.
- Tariffs for unfair business practices.
- No import quotas (for the most part).
- Declare export subsidies to firms.
- Can temporary raise tariffs on certain products (safeguards).
- Regional Trade agreements permitted. i.e. free trade areas like the EU

Tariffs Under Imperfect Competition

Policy Response to Dumping

- WTO rules allow for antidumping tariffs.
- Countries can prove dumping is taking place by using one of three methods:
- 1) Using the price charged in the exporter's local market.
- 2) Using the price charged in a third market.
- 3) Exporter's average costs.
- Anti-dumping tariffs should equal the difference in prices in different markets.
- Why do countries want to put in anti-dumping tariffs?

Policy Response to Dumping

- Predatory dumping-foreign firm sells at price less than AC to chase home firms out of the market.
- Foreign firms might raise prices just from the threat of a tariff.
- If this is the case, the area that would normally go to tariff revenue would instead by considered DWL.
- Between 1980 and 2011, there were more than 1,200 antidumping cases.
- Why so many cases?
- Just bringing the case is enough to have foreign competitors raise prices.

Infant Industry Protection

- Assume only one firm in the home market exists.
- This firm learns how to produce the product at a lower cost when they produce more of that product.
- The firm invests in creating new technology that lowers the average cost of each product: process R&D
- There are two cases when protection of this firm is justified:
- 1) Tariff must lead to home output boost (through better technology)
- 2) Tariff leads to an increase in output for other firms in t he industry.
- ex: The semiconductor industry had one major breakthrough which helped all the other firms lower costs. We refer to this as knowledge spillover within an industry.

Examples of Infant Industry Protection

- 1) Solar panels in US, Europe, Canada, and China
- 2) US Harley Davidson motorcycles in 1980's
- 3) Computer industry in Brazil 1977-1990's
- 4) Automobile industry in China

Solar Panel Example

- US provides consumer tax credits.
- This limits pollution.
- The government also provides tax breaks to companies that produce solar panels.
- Low interest loans by government to firms.
- China uses export subsidies.
- US put tariff on Chinese firms

Computers in Brazil Example

- 1977, programs aimed at protection production of computers in Brazil.
- Imports were banned.
- Ban lasted until the 1990's
- Entire world saw drop price in computer production.
- This can be best seen by mapping the price of computers in the US vs the price of computers in Brazil. Both prices decrease at the same rate; however, the price in Brazil remains above the US price curve.
- The industry in Brazil never gained ability to be a world player. There was a welfare loss and consumers had to pay more for computers.
- Where other industries affected in Brazil? Why?

Chapter 10: Export Policies in Resource and High-Tech Industries

Export Policies in Resource and High-Tech Industries

- Subsidizing exports usually is done for political reasons.
- May also subsidize groups and industries government wants to support.
- US subsidize farmers.
- This hurts other land-abundant countries by increasing competition.
- The Doha Round of WTO (2001-present) talked about getting rid of these subsidies.

Hong Kong Meetings

In 2005, a meeting of WTO in Hong Kong discussed:

- 1) Agriculture exports subsidies
- 2) Domestic farm support classification os countries: top, middle, low support of farms
- 3) Agriculture tariffs
- 4) Cotton Agreement: low tariffs and no subsidies
- 5) Industrial goods
- 6) Service trading rules
- 7) Low tariffs on developing world

Hong Kong Meetings

Common Agricultural Policy (CAP)

- Europe's system of subsidies
- ex: 50 euro payments per ton of harvested sugar beets
- This is five times the world price.
- Europe is now the leading sugar beet supplier.
- US pays cotton farms and also cotton consumers.
- Indirect subsidies-includes food aid to poor countries in form of cash aid.
- Domestic farm support-assistance given to farmers, even if not directly tied to exports.

- Export Subsidies in Small Home Country
- Export Subsidies in Large Home Country
- Production Subsidies in Small Home Country
- Export Tariffs in Small Home Country