14.54 International Trade
— Lecture 22: Trade Policy (III)—

Today's Plan

1. Trade Policy as a Second Best Instrument
2. Strategic Trade Policy
3. The WTO

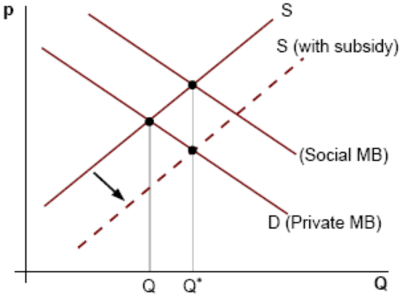
1. Trade Policy as a Second Best Instrument

Market Failure and Trade Policy

- Under perfect competition, small open economies can never increase welfare by imposing a tariff
  - but markets are from being perfect in practice...
- Example: Production externalities
  - Production in some sectors is inefficiently low if the social benefit of production is above the private benefit
  - If the good in question is imported, then a tariff (or quota) on competing goods can be used to boost domestic production
  - If the good is exported, then an export subsidy can be used to boost domestic production
  - In both cases, however, a production subsidy would be more efficient

Production Externalities and Subsidies

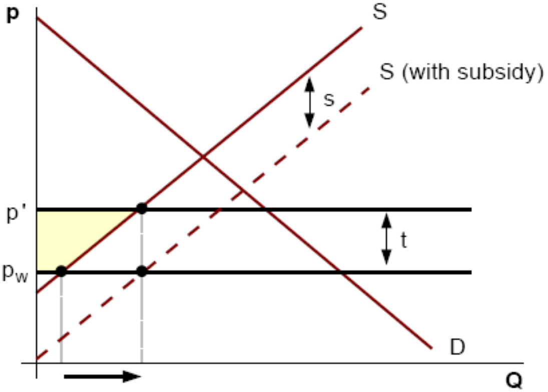
- A positive production externality implies that the social benefit of production is above the private benefit, and the equilibrium production levels are inefficiently low
- A production subsidy can directly eliminate this inefficiency



- The optimal subsidy is the difference between the private and social marginal benefit of production/consumption

Production Subsidy Versus Import Tariff

- A production subsidy can always generate the same increase in production and producer surplus as an import tariff but avoids the consumption distortion



2. Strategic Trade Policy

Trade Policy under Imperfect Competition

- In the 1980s, Brander and Spencer focus on deeper market failure: imperfect competition
- Under imperfect competition, firms may earn profits. So a new rationale for trade policy is to shift profits from foreign to domestic firms
- To investigate that idea formally, consider the following game:
    1. 2 governments, United States and Europe
    2. 2 firms, Boeing and Airbus, both selling to a third market, China

Competition without Export Subsidies

- Suppose the profits of Boeing and Airbus are initially given by:

Boeing \ Airbus	Produce	Don't Produce
Produce	-5,-5	100,0
Don't Produce	0,100	0,0

- There are two possible Nash Equilibria: (Don't Produce, Produce) and (Produce, Don't Produce)

Competition with Export Subsidies

- Now suppose that the EU commits to a subsidy of 25:

Boeing \ Airbus	Produce	Don't Produce
Produce	-5,20	100,0
Don't Produce	0,125	0,0

- There are is a unique Nash Equilibrium: (Don't Produce, Produce)
- The subsidy raises Airbus profits by more than 25

Problems with Strategic Trade Policy

- Leaving aside consumer interests and foreign retaliation, strategic trade policy requires a lot of information in practice
- Consider the similar, but different, matrix of pay-offs

Boeing \ Airbus	Produce	Don't Produce
Produce	5,-20	125,0
Don't Produce	0,100	0,0

- There is a unique Nash Equilibrium (Produce, Don't Produce)

Problems with Strategic Trade Policy (Cont.)

- Now suppose again that the EU commits to a subsidy of 25:

Boeing \ Airbus	Produce	Don't Produce
Produce	5,5	125,0
Don't Produce	0,100	0,0

- There is a unique Nash Equilibrium (Produce, Produce)
- Now the subsidy raises Airbus profits by less than 25!

3. The WTO

A Brief History of the WTO

- 1930: United States passed the Smoot-Hawley Tariff Act
  - Increase US tariffs by as much a 60% on many categories of imports to protect farmers and other industries
  - Quick retaliation by other countries
- 1932-1939: Bilateral neogtiations helped reduce average duty on US imports from 59% in 1932 to 25%

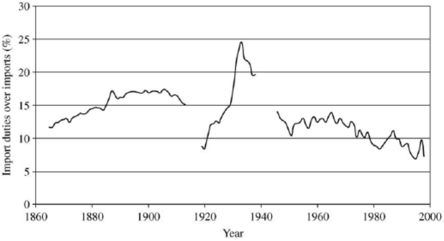


Figure 1. Unweighted world average own tariff, 35 countries. Sample of 35 countries is ARG, AUS, AUT (Austria-Hungary), BRA, CAN, CHL, CHN, COL, CUB, DEU, DNK, EGY, ESP, FRA, GBR, GRC, IDN (Netherlands Indies), IND, ITA, JPN, LKA (Ceylon), MEX, MMR (Burma), NOR, NZL, PER, PHL, PRT, RUS, SWE, THA (Siam), TUR (Anatolia), URY, USA, and YUG (Serbia).

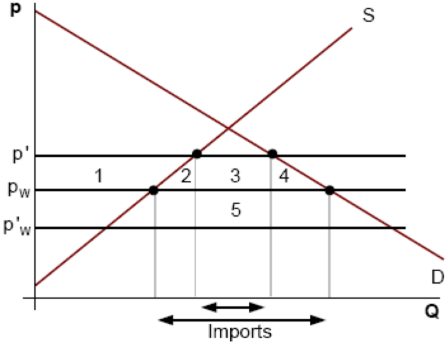
Courtesy of Christopher Blattman, Michael A. Clemens, and Jeffrey G.Williamson.Used with permission.

A Brief History of the WTO (Cont.)

- 1947: 23 countries began multilateral trade negotiations under the General Agreement on Tariffs and Trade (GATT)
    - This is an agreement, not an organization
- 1947-1994: eight "trade rounds"
    - 1967: Kennedy round, 35% decrease in tariffs
    - 1979: Tokyo round, focus on nontariff bariers (NTB) e.g. voluntary export restraints and product standards
    - 1994: Uruguay round, 40% decrease in tariffs, phasing out of the Multi-Fiber Arrangement (MFA)
- 1995: WTO is created
    - It is an organization, covers both services (GATS), intellectual property rights (TRIPS), and includes a dispute settlement procedure

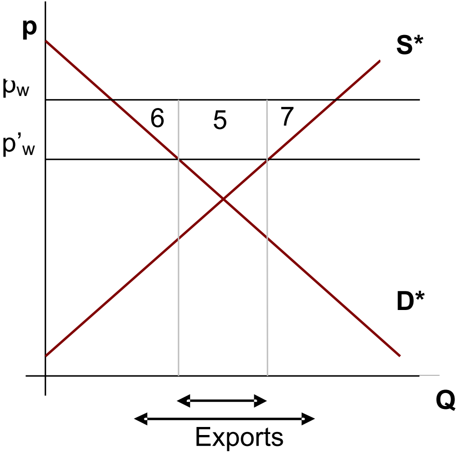
The Economic Logic of the WTO

- By imposing a tariff, a large economy can improve its terms-of-trade



- If tariff is small, Home country gains area 5-(2+4)

- But the tariff worsens the terms-of-trade of its trading partner:



- Foreign country loses area (5+6+7)

The Economic Logic of the WTO (Cont.)

- Now suppose that both Home and Foreign can impose an import tariff

Home \ Foreign	No Tariff	Tariff
No Tariff	0,0	-(5+6+7),5-(2+4)
Tariff	5-(2+4),-(5+6+7)	-(2+4+6+7),-(2+4+6+7)

- The only Nash Equilibrium is (Tariff, Tariff), though both countries are worse off than under (No Tariff, No Tariff)
- The role of the WTO is to eliminate a terms-of-trade driven prisoner's dilemma

The WTO and the Environment

- Most controversial GATT and WTO cases are environmental cases
- What are the WTO rules that affect environmental measures?
- Article XX of the GATT states that environmental standards must be nondiscriminatory, not a desguised restriction to trade, and necessary to achieve the stated objective:
  "Subject to the requirement that such measures are not applied in a manner which would constitute a ... disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures :... (b) necessary to protect human, animal, or plant life or health; ... (g) relating to the conservation of exhaustible natural resources such measures are made effective in conjuction with restrictions on domestic production or consumption

Controversy (I): Gasoline Case

- 1993: EPA introduced a regulation to reduce the amount of contaminants in domestic and imported gasoline
- 1995: Venezuela and Brazil appealed to WTO against new regulation
- 1996: WTO panel ruled in favor of Venezuela and Brazil
  - United States decided to lower standards on imports
- Is the WTO biased against the environment?
  - United States were imposing more stringent standards on foreign firms
  - It could have raised the domestic standards instead, but this was strongly opposed by the US industry...

Controversy (II): Tuna-Dolphin Case

- 1991: United States imposed a ban on Mexican tuna that were not caught with dolphin-safe nets
- Mexico objected to the GATT and GATT panel ruled in favor of Mexico
- Why?
  - Extra territoriality: dolphins were not in US territory
  - Ban was not necessary to achieve goal (no multilateral negotiation)
- 1997: Mexico, United States, and 8 other tuna-fishing nations signed international treaty

Controversy (III): GM Food Case

- Since 1998, EU has banned imports of genetically modified food
- 2003: United States appealed to the WTO agains European ban
- 2006: WTO ruled against the EU
- Why?
  - Countries cannot keep out imports based on precautionary reasons but must have some scientific evidence