Arguments For and Against Protection

- “First-best” arguments for trade protection
- “Second-best” arguments for trade protection
  - Distortions may create a case for trade protection
  - The “Specificity Rule”: Where to act to correct a distortion?
  - Distortions in international trade, and use of trade policy to offset distortions
    - Infant industry argument
    - Senile industry and adjustment assistance
    - Infant government / tariff revenue argument
    - Others: National defense, income redistribution, ...
- Political economy of trade policy
The First-best World

- **Conditions of Pareto Optimality** *(Chap1-2, p.11)*  
  
  MRT (in production) = MRS (in consumption) = TOT (relative prices)  
  
  ⇒ No marginal changes in production or consumption can further improve welfare  
  
  in Lindert/Pugel:  
  MC (private marginal cost) = MB (private marginal benefit) = P (price)

- **When externalities or spillover effects are possible**  
  
  » Add two additional conditions:  
  SMB (social marginal benefit) = SMC (social marginal cost) = MC = MB = P

- **Taxes are another distorting effect**  
  
  » Taxes to achieve economic / social objectives  
  
  » Taxes (subsidies) on production and/or consumption
The “First-best” World and Trade Policy

- In “First-best” world, free trade is the optimal policy
- Assumptions about the “first-best” world:
  - Private demand and supply curves represent social benefits and costs ⇔ no externalities or spillover effects
  - No adjustment costs for either capital or labor
    - Labor can move without cost from farming to textiles (and back)
    - Capital can move at no cost from textiles to farming (and back)
  - Even if there were uncertainties regarding future technology or future demand patterns, no adjustment costs ⇒ always producing the right amount with the right technology
- Free-trade achieves its potential as first-best because winners can compensate losers to make them as least as well off compared to no trade
### Types of Distortions and Externalities
*(that we’re likely to find in the real world)*

- **External Costs**
  - If private producers create pollution (social cost), too much private production \((\text{SMC} > P)\)

- **External Benefits**
  - If private producers provide employee training (social benefit), too little provided \((\text{SMB} > P)\)

- **Distorting Tax**
  - \(P(1+ \text{tax}) > \text{SMC}\); Producers only receive “\(P\)” \(\Rightarrow\) too little supplied

- **Monopoly Power**
  - \(P > \text{MSC}\); not enough demanded, monopolist price is too high

- **Monopsony Power**
  - \(P < \text{MSB}\); not enough (labor) supplied
Other Departures from First-best World
(that we’re likely to find in the real world)

✦ Adjustment costs
  » Laborers cannot move costlessly from one industry to next
    ◆ Costs of re-training
    ◆ Costs of re-location
    ◆ Higher personal utility working in one industry (farming) than another (autos)
  » Capital cannot move costlessly from one industry to next
    ◆ Costs of tearing down and relocating factories (putty-clay)
    ◆ Technology (patents) not freely available

✦ Uncertainty costs
  » Adjustment costs for labor and capital may be wasted if underlying shift is temporary, or of unknown duration
Theory of the Second Best

- **Theory of the Second Best**
  - When two sub-optimal situations are compared, there are no general rules for judging which is better than the other.

- **“Second-best” policies**
  - So named because they may add other distortions to the economy and/or not deal with the distortion directly (the specificity principle).

- The “optimum tariff” is a “first best” policy because it deals directly with the foreign distortion (however, it is first best *conditional on* no retaliation.)
“Second-best” Arguments for Trade Protection

- When distortions already exist, another distorting policy (tariff) may be welfare improving
  - Helping to close in on Pareto optimality:
    \[ P = MB = MC = SMB = SMC \]

- The “Specificity Rule”
  - Intervene at the source of the problem. It is usually more efficient to use policy tools closest to the source of the distortion you are trying to correct.
  - For example:
    - If auto production too low, subsidize production
    - If workers are poor, supplement workers’ income
    - Tariff produces one good effect, but often has other bad (unneeded) effects
Promoting Domestic Production with a Tariff

- Recall Figure 7.4 and impact of 10% tariff on bicycles
- Cost to importing country is
  - \( b+d \) deadweight production and consumption losses
  - Assumes government collects tariff revenue \( c \)
- If objective is to promote production (not reduce consumption) then area \( d \) may be unnecessary
- If so, tariff is a second-best policy to boost domestic production

<table>
<thead>
<tr>
<th>Quantity (Millions per year)</th>
<th>Price ($/bike)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>550</td>
</tr>
<tr>
<td>2</td>
<td>330</td>
</tr>
<tr>
<td>3</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>200</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

World Price + Tariff = 1.25

World Price = 1.5

M0 = 1.5

D0 = 1.25

P0 = 1

Recall Figure 7.4 and impact of 10% tariff on bicycles
Cost to importing country is
- \( b+d \) deadweight production and consumption losses
- Assumes government collects tariff revenue \( c \)
If objective is to promote production (not reduce consumption) then area \( d \) may be unnecessary
If so, tariff is a second-best policy to boost domestic production

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Chapter 9, p. 8
Promoting Domestic Production with a Subsidy

- By offering domestic producers a subsidy, production ↑
- Suppose subsidy is $30/bike
  - Supply curve ↑ to \( S_d' \)
  - Domestic production ↑ to \( S_1 \)
  - Consumers face \( P_w = $300 \)
  - Consumers import \( D_0 = 1.50 \) mm

Cost of the subsidy
- Gross cost = $30 \times (S_1 - S_0)
- Net cost = \( b \)

What is smallest subsidy to achieve production ↑ to \( S_1 \)?

How to administer subsidy?

Why isn’t subsidy used more?
Non-Economic Arguments for Protection

- National defense
- Minimum production level (e.g. steel, rice, …)
- Maximum consumption level (e.g. luxury goods)
- Self-sufficiency (e.g. in oil or energy)
- National presence in critical industries
  - High-tech, airlines, communications, …

Using tariffs to achieve the above objectives (and others) are second-best policies compared with production subsidies
The Infant Industry Argument  

Before the tariff, domestic production is zero as world price < $S_d(t1)$. Consumers import $S_5$

With the tariff

» Domestic production ↑ to $S_1$
» Consumption ↓ to $S_4$
» Total *national* cost $C + D$

Over time, industry matures, becomes more cost efficient

» Supply curve shifts to $S_d(t2)$
» Domestic production ↑ to $S_3$
» Consumption remains at $S_4$
» Total *national* cost: $B+D-S$

◆ Why is $S$ a benefit?
The Infant Industry Argument (2 of 2)

- Criteria for protection:
  - S > 0
  - S > B + D
  - Present value of gains over time (S - B - D) > Present values of costs over time (B + D)
  - Social rate of return on this investment exceeds the return on other investments

- To be at all credible, infant industry argument must assume that industry matures and no longer needs protection

- When to remove infant industry protection?
- As usual, production subsidy dominates tariff
The Senile (Dying) Industry Argument

Similar to infant industry argument because industry depends on tariff protection for its survival

Elements of the argument for tariff protection

» Social marginal cost of free trade (and letting industry die) much greater than private MC
  ◆ Workers in the industry have no alternative employment and cannot be re-trained
  ◆ Capital cannot be transformed for another use
» Nation saves by retaining tariff and avoiding shut-down costs

On the other hand:

» Subsidy to industry dominates a tariff
» Adjustment assistance to industry and workers could benefit
» Why support only those made poor through trade?
The Infant Government (Revenue) Argument for a Tariff

- For some governments, few alternatives as source of tax revenue
  - High costs of administering individual or corporate taxes + incomes may be low
  - Low costs of monitoring borders and ports
- If these conditions are met, then a tariff may be the best policy tool for an infant government to raise tax revenue
Political Economy of Trade Policy

- From a welfare standpoint, we showed that
  Subsidy > Tariff > Quota > VER
- However, the real world often uses these in reverse
  VER > Quota > Tariff > Subsidy

- Why do barriers to free trade remain?
  1. Because of a failure in economic education?
  2. Because individuals and groups find it in their self-interest or in the social interest to provide trade protection to certain groups or industries?
Economic Self-Interest and Trade Policy

- If income redistribution is costless, voters favor free trade whether or not workers outnumber capitalists.
- If income redistribution is costly:
  - Voting costs: Mass of consumers with small benefits from free trade do not vote, small groups with large benefits vote.
  - Free trade is a public good with free-rider problems. All consumers gain from free-trade whether they contribute to free-trade org. or not. They do not contribute $\Rightarrow$ no free trade.
  - Examples: Organized industries & disorganized consumers
    - Textiles and apparel
    - Sugar producers
  - Opposite example: Steel import quotas
    - Large steel users (Autos, Caterpillar) well organized.
Economic Self-Interest: Other Factors

✧ Behavioral Economics
  » Greater welfare weight given to loss of income (X) than to gain of income (X) ⇒ protection for declining industries
  » Uncertainty and risk aversion: People prefer certainty ⇒ preference for quotas and quantitative restrictions
  » Self-interest may favor VERs because these are outside of GATT, and fewer domestic political problems
  » Self-interest argues against subsidies; they represent an explicit cost, difficult to obtain politically, shorter uncertain life

✧ Prisoner’s Dilemma
  » If countries could cooperate successfully, they would settle on free trade
  » Fear of defection (and injury) leads both to defect (and protect) to prevent a worse outcome
Social Concerns and Trade Policy

- Welfare of certain social and economic groups + promotion of national and int’l goals ⇒ trade policy
  - Preserving *status quo* income distribution
  - Achieving income redistribution
  - Building political power

- Concern over changing income distribution
  - Income ↑ (low welfare weight), Income ↓ (high welfare weight)
  - Promote welfare of lowest income groups (e.g. exception for set-asides for small or minority firms in government contracts)
  - Myopia: Observe jobs *lost* through free trade, cannot observe jobs likely to be *gained* by free trade
  - Quotas more certain to protect a declining sector than tariffs
  - Tariff or quota puts burden on groups that consume the product, while subsidy puts burden on all taxpayers
Foreign Policy and Trade Policy

- Large (hegemonic) states (England in 19th C, and U.S. post-WW2)
  - May have used liberal trade policies to induce other countries to accept their political leadership
  - U.S. trying to stop spread of Communism by building free world economic linkages
  - National defense and trade policy: US-Israel free trade arrangement

- Today, should US endorse China for membership in the World Trade Organization or block membership for foreign policy reasons?
Summary on Arguments For and Against Protection

✧ Valid arguments for tariffs exist. These arguments rely on some type of distortion, or gap, between private and social costs or benefits.
✧ In the second-best world, a tariff *may* be better than doing nothing. But very often some other policy is better than a tariff in responding to the distortion.
✧ The specificity rule is important for selecting the best policy response to a distortion.
✧ Why nations and voters choose tariffs and protection is a complex issue. Ideas from “political economy” offer some insights into the popularity of certain trade policies, and the unpopularity of others.