CHAPTER 9

Application: International Trade

PRINCIPLES OF Economics

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Introduction

- Recall from Chapter 3:
  A country has a (   ) **advantage** in a good if it produces the good at lower opportunity cost than other countries.

  Countries can gain from trade if each exports the goods in which it has a comparative advantage.
- Now we apply the tools of welfare economics to see where these gains come from and who gets them.

The World Price and Comparative Advantage

- P_W = the (   ) of a good, the price that prevails in world markets
- P_D = domestic price without trade
- If $P_D < P_W$,
  - country has comparative advantage in the good
  - under free trade, country exports the good
- If $P_D > P_W$,
  - country does not have comparative advantage
  - under free trade, country imports the good

The Small Economy Assumption

- A small economy is a **price taker** in world markets: Its actions have no effect on P_W.
- Not always true – especially for the U.S. – but simplifies the analysis without changing its lessons.
- When a small economy engages in free trade, P_W is the only relevant price:
  - No seller would accept less than P_W, since she could sell the good for P_W in world markets.
  - No buyer would pay more than P_W, since he could buy the good for P_W in world markets.

A Country That Exports Soybeans

Without trade,

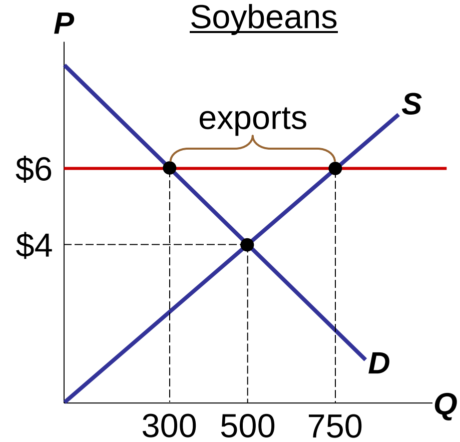
P_D = \$4

Q = 500

P_W = \$6

Under free trade,

- domestic consumers demand 300
- domestic producers supply 750
- exports = 450



A Country That Exports Soybeans

Without trade,

CS = A + B

PS = C

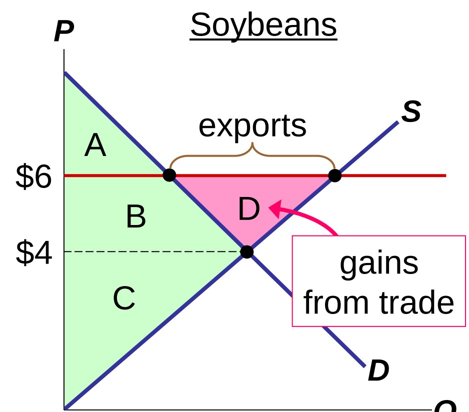
Total surplus
= A + B + C

With trade,

CS = A

PS = B + C + D

Total surplus
= A + B + C + D



ACTIVE LEARNING 1

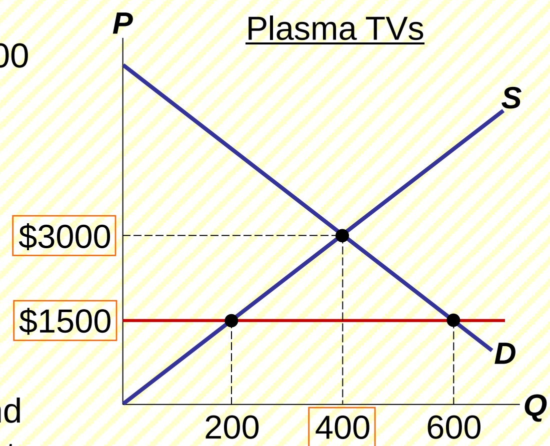
Analysis of trade

Without trade,
P_D = $3000, Q = 400

In world markets,
P_W = $1500

Under free trade, how many TVs will the country import or export?

Identify CS, PS, and total surplus without trade, and with trade.

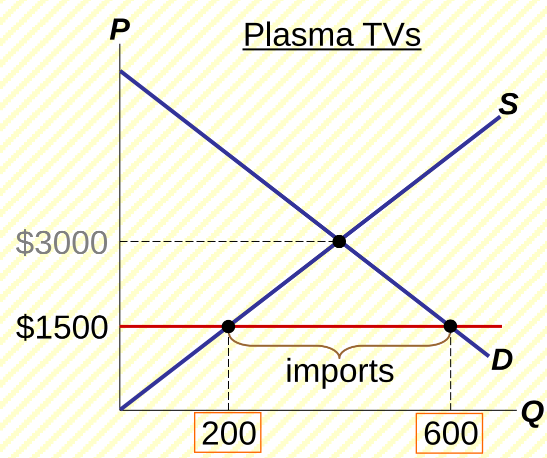


ACTIVE LEARNING 1

Answers

Under free trade,

- domestic consumers demand 600
- domestic producers supply 200
- imports = 400



ACTIVE LEARNING **1**

Answers

Without trade,

CS = A

PS = B + C

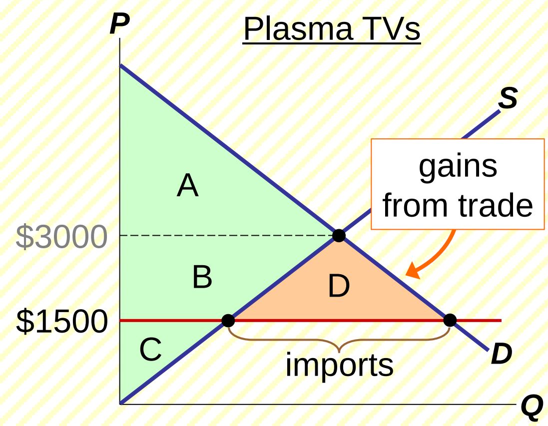
Total surplus
= A + B + C

With trade,

CS = A + B + D

PS = C

Total surplus
= A + B + C + D



Summary: The Welfare Effects of Trade

	$P_D < P_W$	$P_D > P_W$
direction of trade	exports	imports
consumer surplus	falls	rises
producer surplus	rises	falls
total surplus	rises	rises

Whether a good is imported or exported,
trade creates winners and losers.
But the gains exceed the losses.

Other Benefits of International Trade

- Consumers enjoy increased variety of goods.
- Producers sell to a larger market, may achieve lower costs by producing on a larger scale.
- Competition from abroad may reduce market power of domestic firms, which would increase total welfare.
- Trade enhances the flow of ideas, facilitates the spread of technology around the world.

Then Why All the Opposition to Trade?

- Recall one of the Ten Principles from Chapter 1:
  Trade can make everyone better off.
- The winners from trade could compensate the losers and still be better off.
- Yet, such compensation rarely occurs.
- The losses are often highly concentrated among a small group of people, who feel them acutely.

  The gains are often spread thinly over many people, who may not see how trade benefits them.
- Hence, the losers have more incentive to organize and lobby for restrictions on trade.

Tariff: An Example of a Trade Restriction

- ( ): a tax on imports
- Example: Cotton shirts

  ***P*$_W$** = \$20

  Tariff: ***T*** = \$10/shirt

  Consumers must pay \$30 for an imported shirt.

  So, domestic producers can charge \$30 per shirt.

- In general, the price facing domestic buyers & sellers equals (***P*$_W$** + ***T***).

Analysis of a Tariff on Cotton Shirts

***P*$_W$** = \$20

Free trade:

buyers demand 80

sellers supply 25

imports = 55

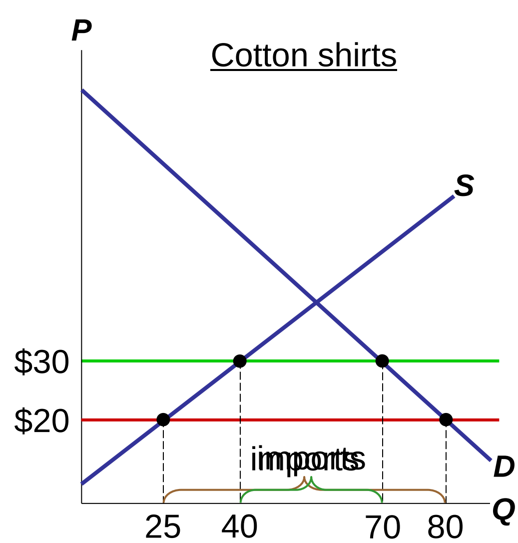
T = \$10/shirt

price rises to \$30

buyers demand 70

sellers supply 40

imports = 30



Analysis of a Tariff on Cotton Shirts

Free trade

CS = A + B + C
+ D + E + F

PS = G

Total surplus = A + B
+ C + D + E + F + G

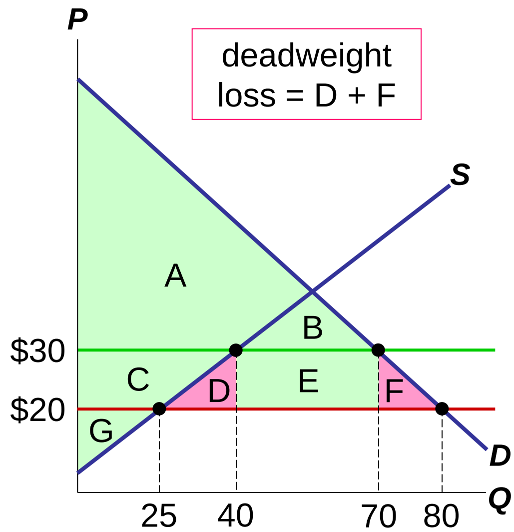
Tariff

CS = A + B

PS = C + G

Revenue = E

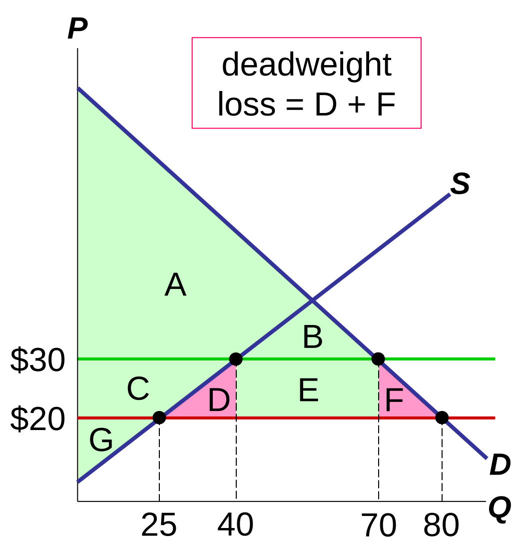
Total surplus = A + B
+ C + E + G



Analysis of a Tariff on Cotton Shirts

D = deadweight loss
from the
overproduction
of shirts

F = deadweight loss
from the under-
consumption
of shirts



Import Quotas: Another Way to Restrict Trade

- An **import quota** is a quantitative limit on imports of a good.
- Mostly has the same effects as a tariff:
  - Raises price, reduces quantity of imports.
  - Reduces buyers' welfare.
  - Increases sellers' welfare.
- A tariff creates revenue for the govt. A quota creates profits for the foreign producers of the imported goods, who can sell them at higher price.
- Or, govt could auction licenses to import to capture this profit as revenue. Usually it does not.

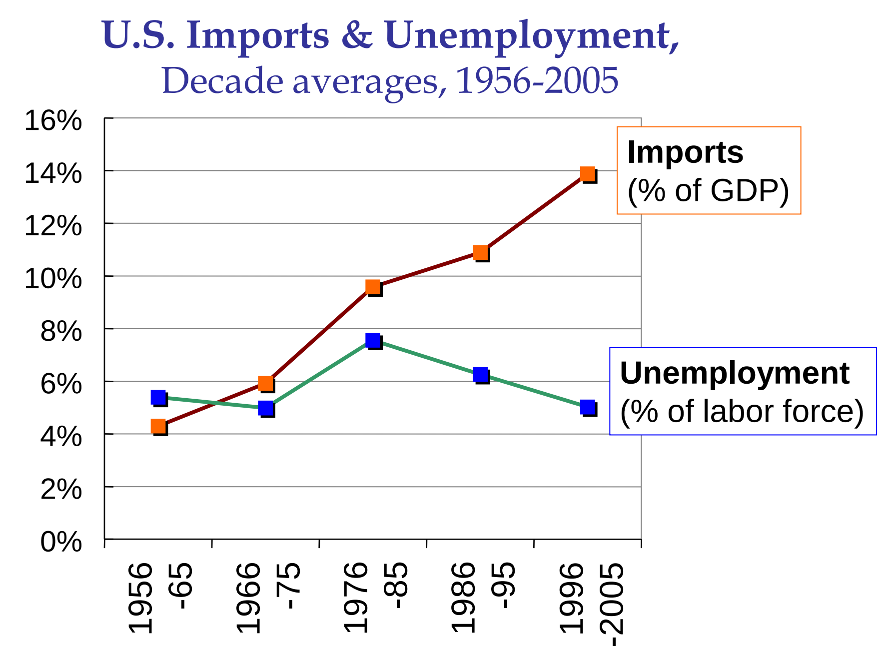
Arguments for Restricting Trade

1. ( )

Trade destroys jobs in industries that compete with imports.

Economists' response:

Look at the data to see whether rising imports cause rising unemployment…



Arguments for Restricting Trade

1. The jobs argument

Trade destroys jobs in the industries that compete against imports.

Economists' response:

Total unemployment does not rise as imports rise, because job losses from imports are offset by job gains in export industries.

Even if *all* goods could be produced more cheaply abroad, the country need only have a *comparative* advantage to have a viable export industry and to gain from trade.

Arguments for Restricting Trade

2. The ( ) security argument

An industry vital to national security should be protected from foreign competition, to prevent dependence on imports that could be disrupted during wartime.

Economists' response:

Fine, as long as we base policy on true security needs.

But producers may exaggerate their own importance to national security to obtain protection from foreign competition.

Arguments for Restricting Trade

3. The ( ) argument

A new industry argues for temporary protection until it is mature and can compete with foreign firms.

Economists' response:

Difficult for govt to determine which industries will eventually be able to compete and whether benefits of establishing these industries exceed cost to consumers of restricting imports.

Besides, if a firm will be profitable in the long run, it should be willing to incur temporary losses.

Arguments for Restricting Trade

4. The (   ) argument

Producers argue their competitors in another country have an unfair advantage, *e.g*. due to govt subsidies.

Economists' response:

Great! Then we can import extra-cheap products subsidized by the other country's taxpayers.

The gains to our consumers will exceed the losses to our producers.

Arguments for Restricting Trade

5. The protection-as-bargaining-chip argument

Example: The U.S. can threaten to limit imports of French wine unless France lifts their quotas on American beef.

Economists' response:

Suppose France refuses. Then the U.S. must choose between two bad options:

A) Restrict imports from France, which reduces welfare in the U.S.

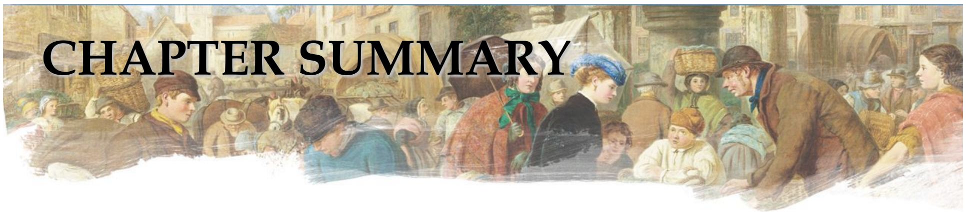
B) Don't restrict imports, which reduces U.S. credibility.

Trade Agreements

- A country can liberalize trade with
  - unilateral reductions in trade restrictions
  - multilateral agreements with other nations
- Examples of trade agreements:
  - North American Free Trade Agreement (NAFTA), 1993
  - General Agreement on Tariffs and Trade (GATT), ongoing
- World Trade Organization (WTO), est. 1995, enforces trade agreements, resolves disputes

CHAPTER SUMMARY

- A country will export a good if the world price of the good is higher than the domestic price without trade. Trade raises producer surplus, reduces consumer surplus, and raises total surplus.
- A country will import a good if the world price is lower than the domestic price without trade. Trade lowers producer surplus but raises consumer and total surplus.
- A tariff benefits producers and generates revenue for the govt, but the losses to consumers exceed these gains.



CHAPTER SUMMARY

- Common arguments for restricting trade include: protecting jobs, defending national security, helping infant industries, preventing unfair competition, and responding to foreign trade restrictions.

  Some of these arguments have merit in some cases, but economists believe free trade is usually the better policy.