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PRINCIPLES OF

ECONOMICS

Eighth Edition

CHAPTER

9

Application: International Trade

Look for the answers to these questions:

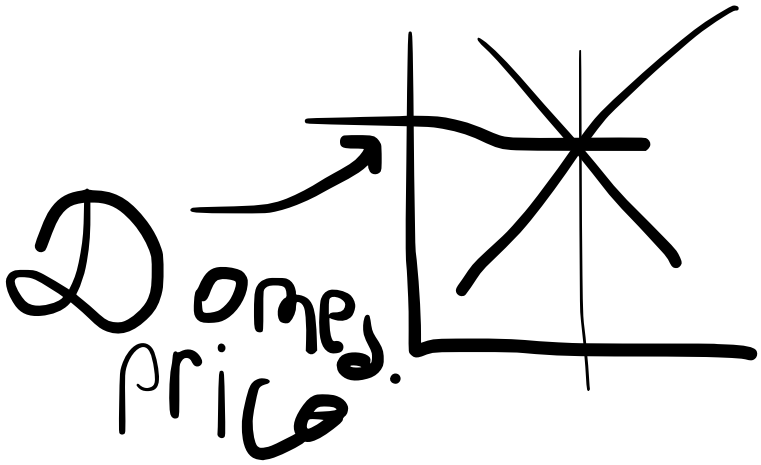
- What determines how much of a good a country will import or export?
- Who benefits from trade? Who does trade harm? Do the gains outweigh the losses?
- If policymakers restrict imports, who benefits? Who is harmed? Do the gains from restricting imports outweigh the losses?
- What are some common arguments for restricting trade? Do they have merit?

Review from Chapter 3

- A country has a comparative 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

The Determinants of Trade

- The equilibrium without trade
  - Only domestic buyers and sellers
  - Equilibrium price and quantity
    - Determined on the domestic market
  - Total benefits
    - Consumer surplus
    - Producer surplus



World Price and Comparative Advantage

- P_W = the world price of a good, the price that prevails in world markets
- P_D = domestic price without trade

- If $P_D < P_W$,
  - Domestic country has comparative advantage, country exports the good
- If $P_D > P_W$,
  - Domestic country does not have comparative advantage, 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
  - When a small economy engages in free trade, P_W is the only relevant price:
    - No seller would accept less than P_W (can sell the good for P_W in world markets)
    - No buyer would pay more than P_W (can buy the good for P_W in world markets)

A Country That Exports Soybeans

Without trade,

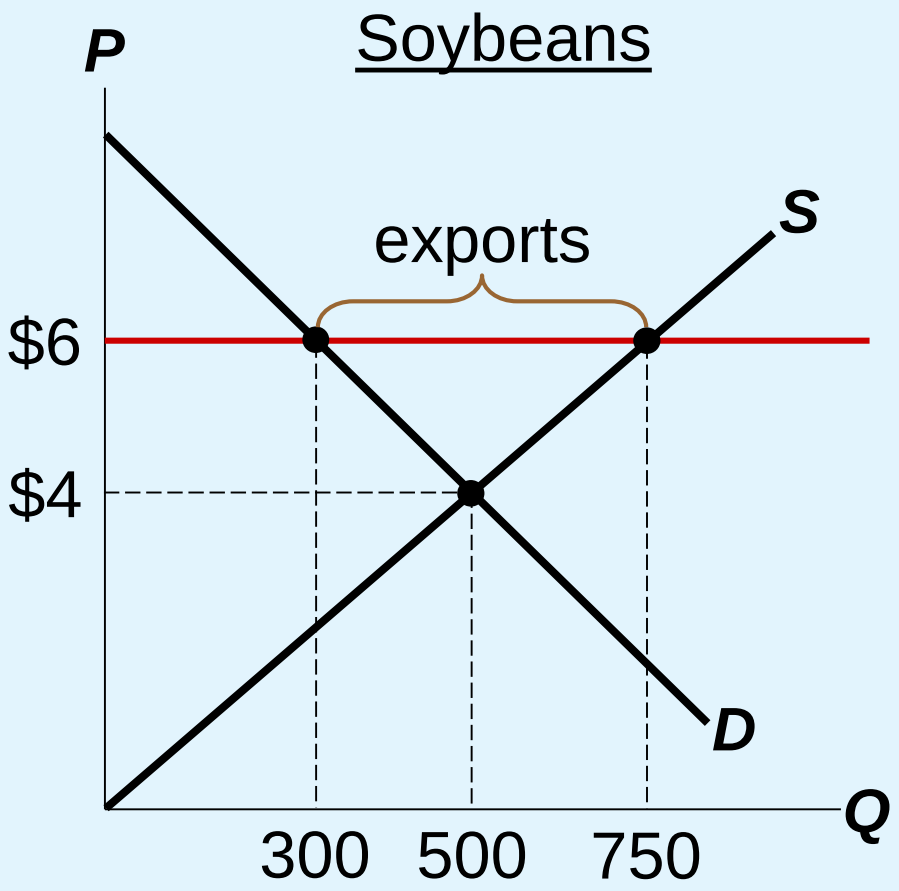
P_D = \$4

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

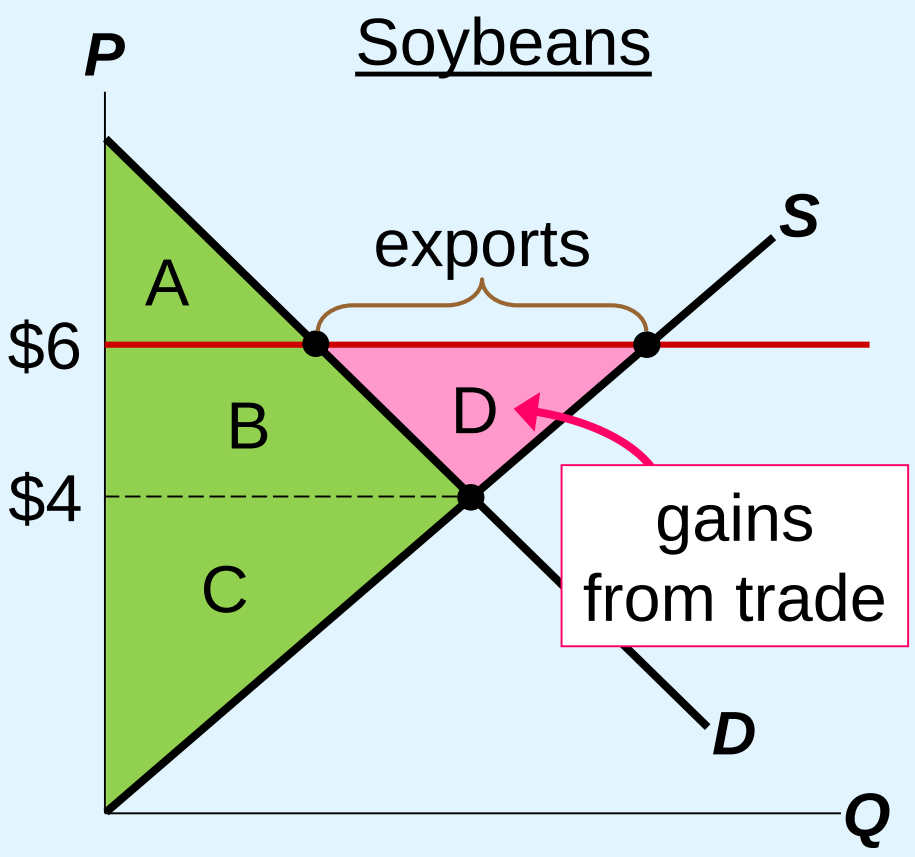
<u>With trade</u>,

CS = A

PS = B + C + D

Total surplus

= A + B + C + D



Active Learning 1

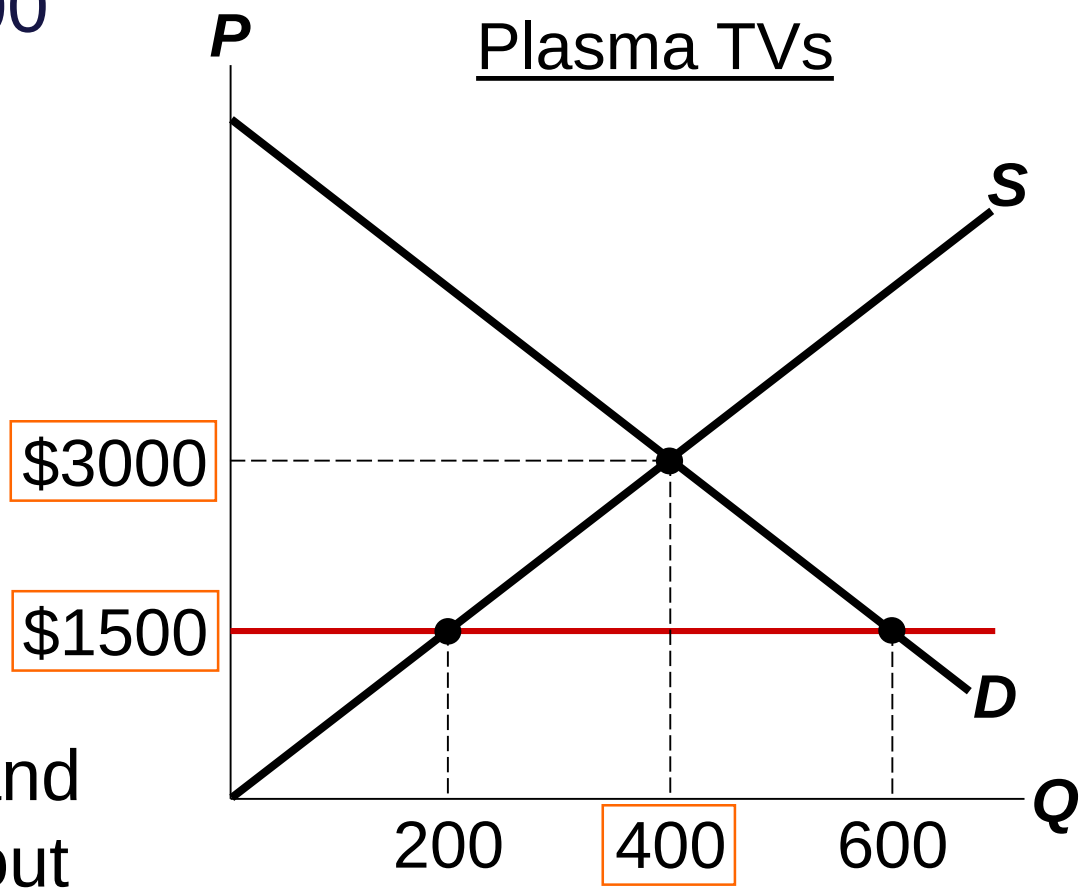
Analysis of Trade

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?

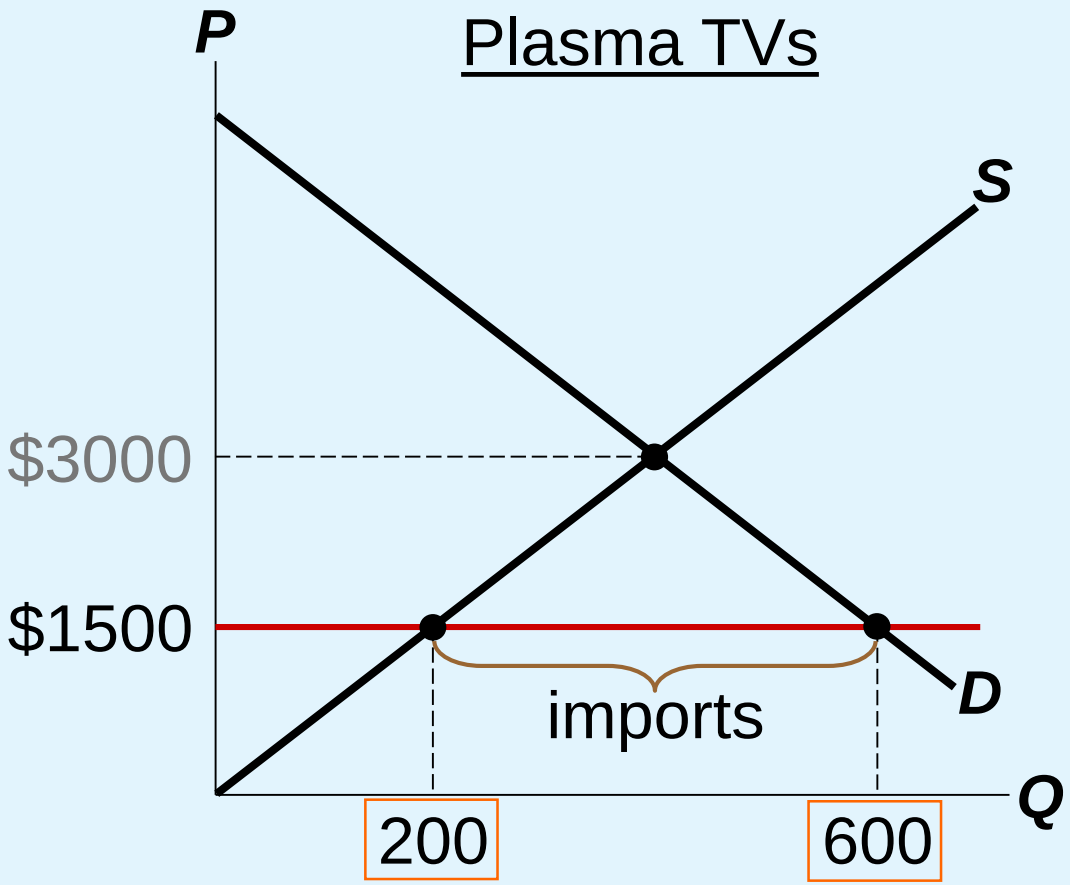
- Identify CS, PS, and total surplus without trade, and with trade.



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

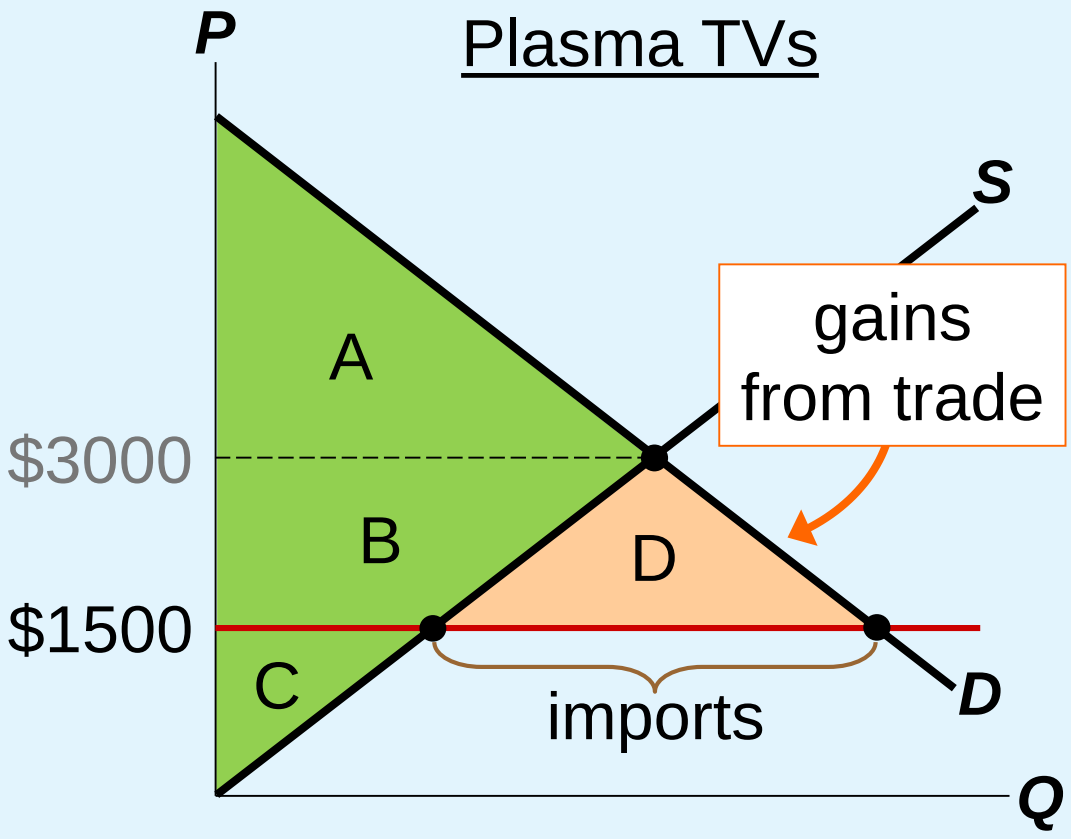
<u>With trade</u>,

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.

Winners and Losers From Trade

- Other benefits of international trade
  - Consumers: increased variety of goods
  - Producers: lower costs - economies of scale
  - Increased competition: reduce market power of domestic firms (increase total welfare)
  - Enhanced flow of ideas, facilitates the spread of technological advances around the world

Winners and Losers From Trade

- Then why all the opposition to trade?
  - The losers have more incentive to organize and lobby for restrictions on trade:
    - Losses: concentrated among a small group of people, who feel them acutely
    - Gains: spread thinly over many people, who may not see how trade benefits them
    - The winners from trade could compensate the losers and still be better off (such compensation rarely occurs)

producers

Winners and Losers From Trade

- Tariff
  - Tax on goods produced abroad and sold domestically
- Free trade
  - Domestic price = World price
- Tariff on imports
  - Raises domestic price above world price
    - By the amount of the tariff

Analysis of a Tariff on Cotton Shirts

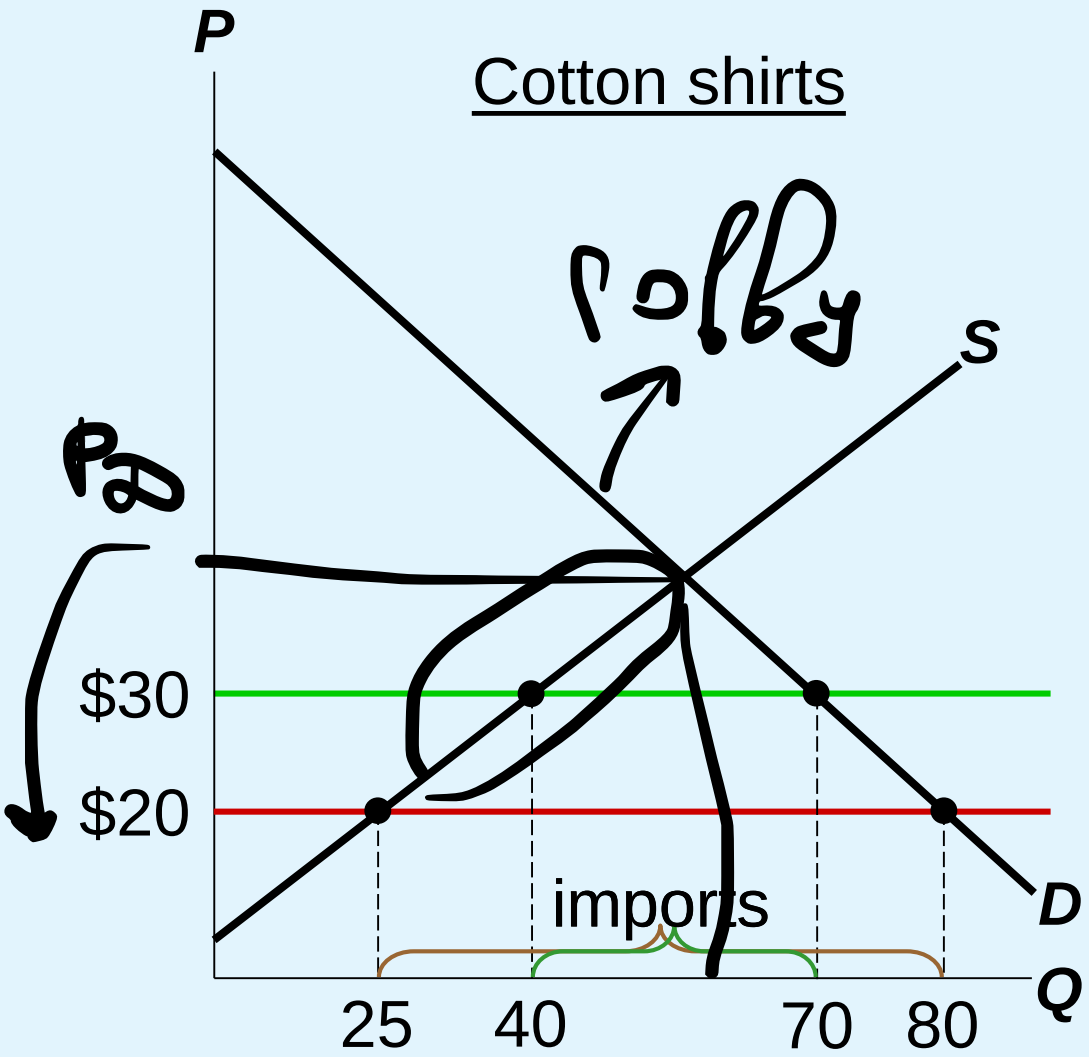
P_W = \$20

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

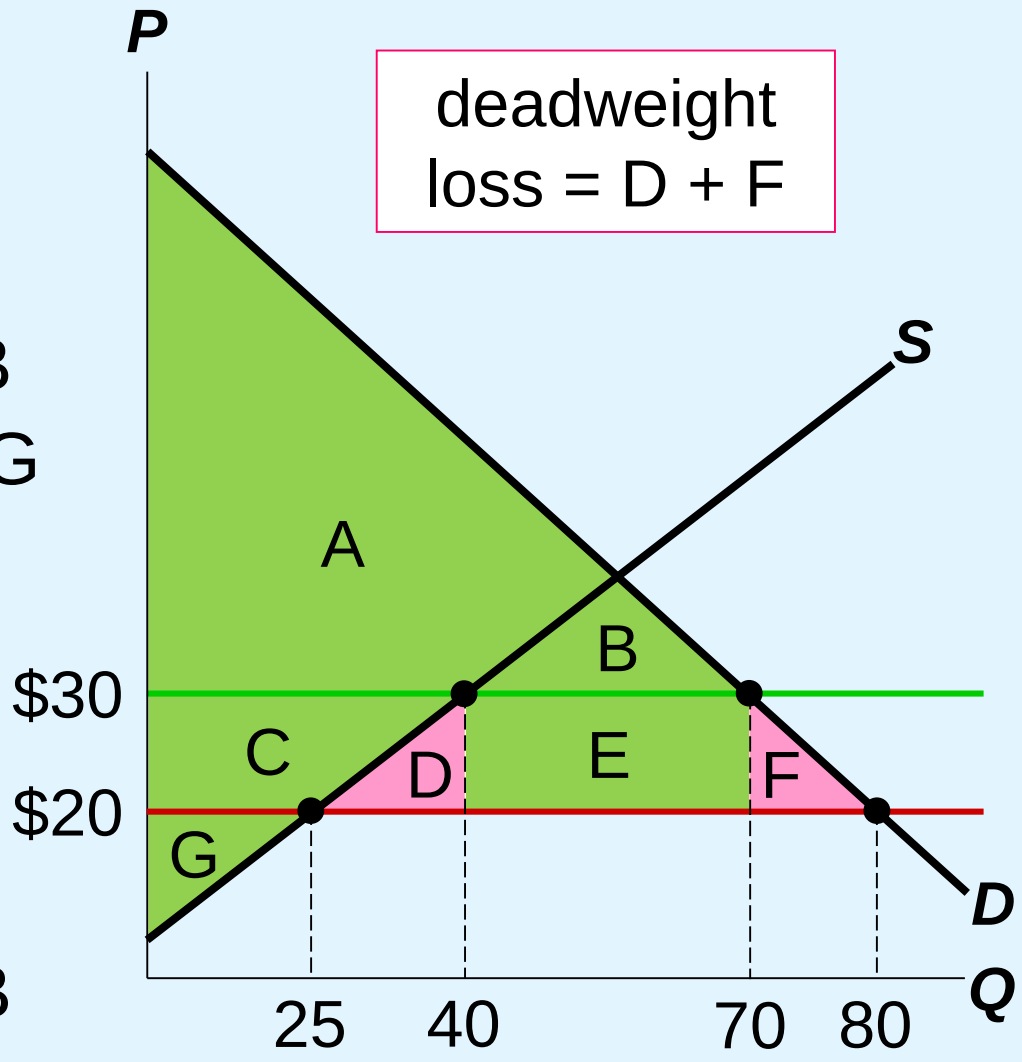
With tariff

CS = A + B

PS = C + G

Revenue = E

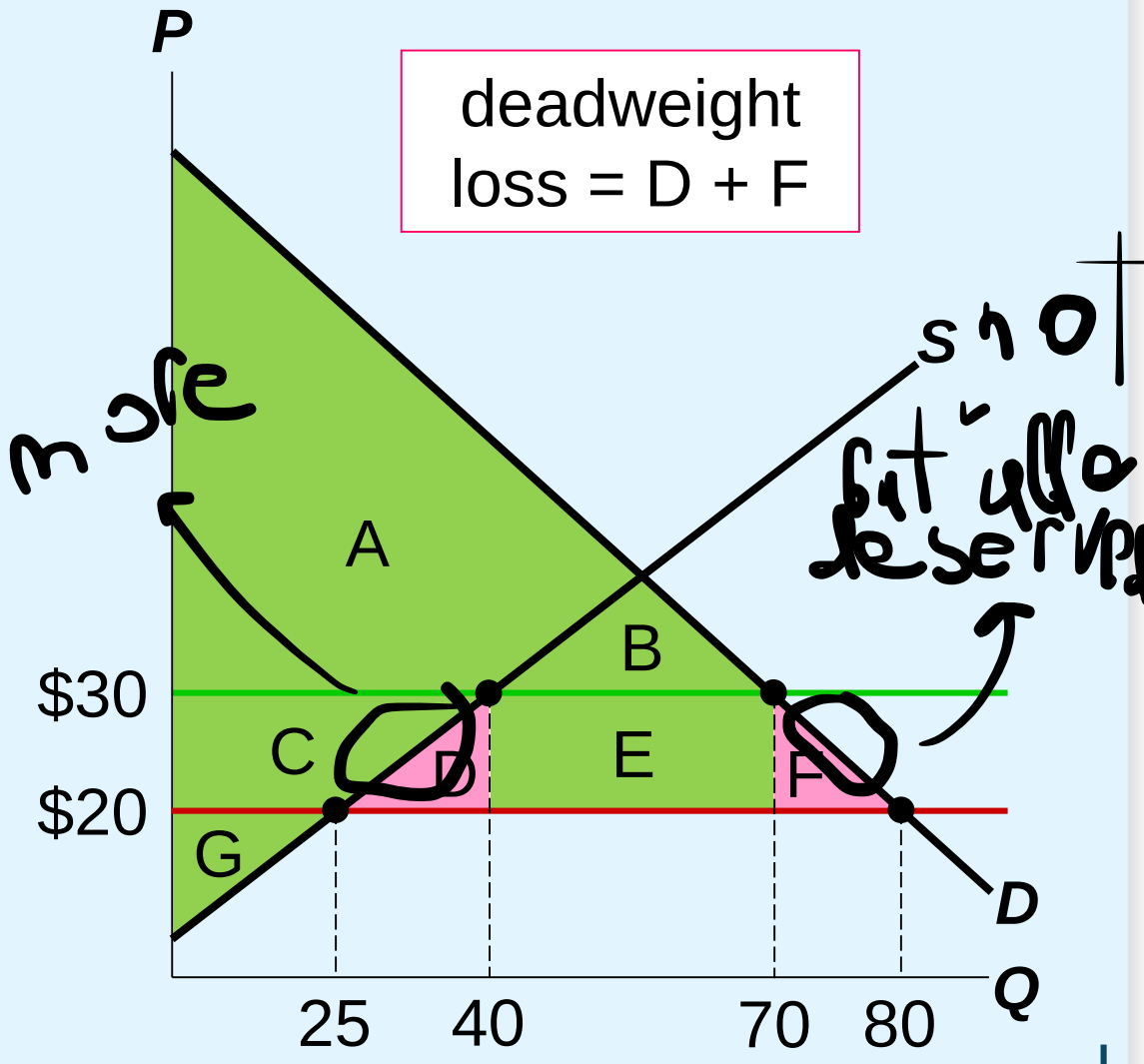
Total surplus = A + B
+ C + E + G



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

- Import quota
  - 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
  - Creates profits for the foreign producers of the imported goods, who can sell them at higher price

↑ margin

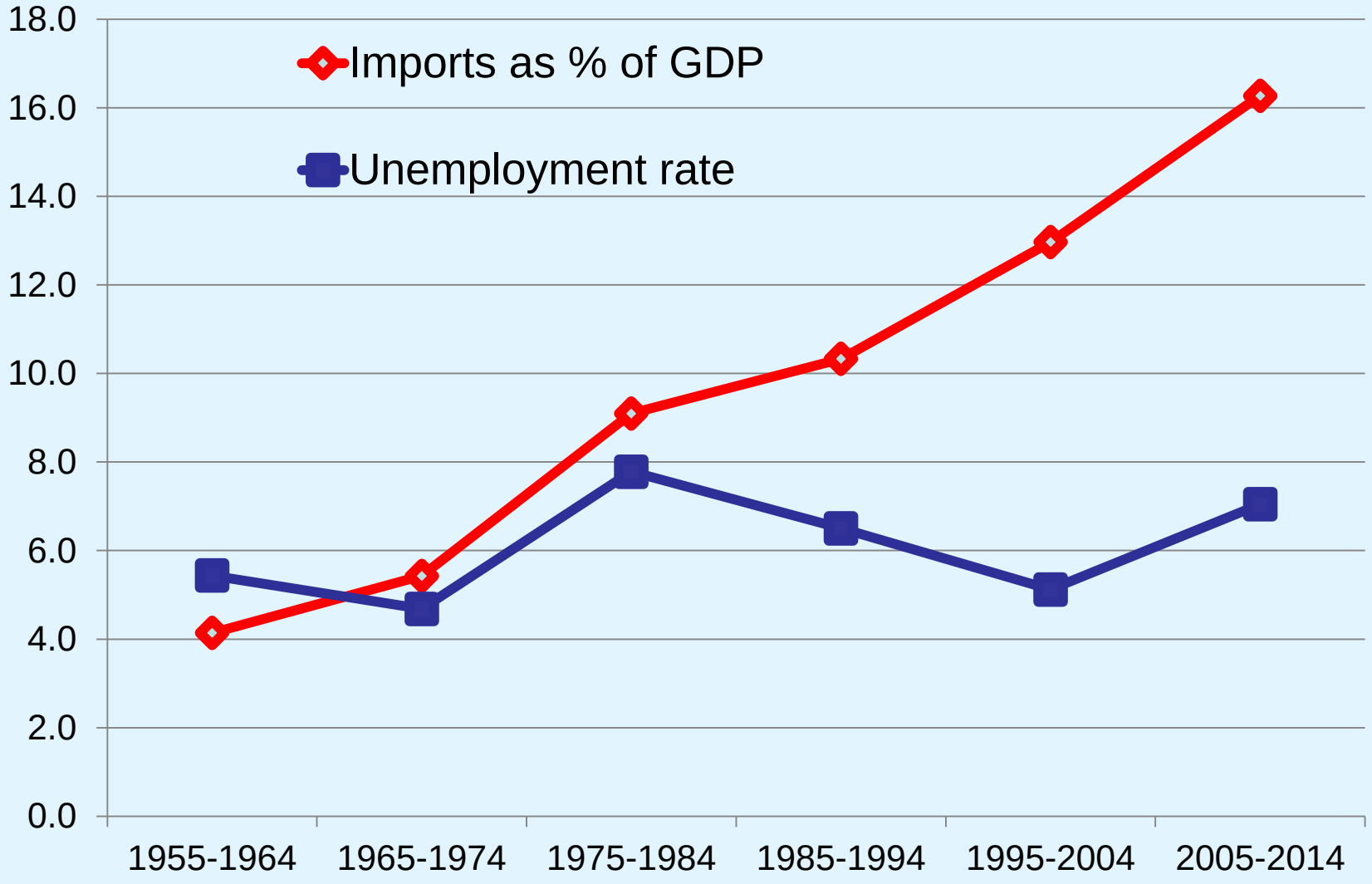
price for domestic ↑

foreign ↑

Arguments For Restricting Trade

- The jobs argument
  - "Trade with other countries destroys domestic jobs"
  - Free trade creates jobs at the same time that it destroys them
  - Total unemployment does not rise as imports rise, because job losses from imports are offset by job gains in export industries…. Cancelled

U.S. Imports & Unemployment, decade averages, 1955–2014



Arguments For Restricting Trade

- The national-security argument
  - "The industry is vital for national security and it should be protected from foreign competition, to prevent dependence on imports that could be disrupted during wartime"
  - When there are legitimate concerns over national security
    - But producers may exaggerate their own importance to national security to obtain protection from foreign competition

Arguments For Restricting Trade

- The infant-industry argument
  - "New industries need temporary trade restriction to help them get started"
  - Difficult to implement in practice
  - The temporary policy is hard to remove
  - Protection is not necessary for an infant industry to grow

Arguments For Restricting Trade

- The unfair-competition argument
  - "Producers argue their competitors in another country have an unfair advantage, e.g. due to government subsidies"
  - Increase in total surplus for the country
    - We should welcome imports of low-cost products subsidized by the other country's taxpayers
    - The gains to our consumers will exceed the losses to our producers

Arguments For Restricting Trade

- The protection-as-a-bargaining-chip argument
  - "Trade restrictions can be useful when we bargain with our trading partners"
  - The threat may not work

Tit-for-tat

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 government, but the losses to consumers exceed these gains.

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.